

PART 2: SETTING THE CONTEXT

11.

SITE ANALYSIS

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11.1 Introduction

This section outlines the physical site features and issues that have influenced and shaped the masterplanning and design process, primarily within the site's red line boundary, but with reference to any contextual issues and features outside of it that have bearing on the design response.

The topics that are covered in this chapter are as follows:

- Planning context;
- Site location;
- Topography, hydrology and geology;
- Landscape and visual character;
- Key landscape features and green infrastructure;
- Existing movement network;
- Existing facilities;
- Historic environment; and
- Existing utilities and infrastructure.

Further detail on each of the topics is available in the baseline analysis section of documents which accompany this DAS such as the Planning Statement and the Flood Risk Assessment.

At the end of this section we summarise the key findings from our understanding of the site's physical context and outline the opportunities that are inherent in the site constraints and which will be unlocked by the development. We also highlight other opportunities that will be introduced as part of the Development Framework Plan.

11.2 Planning context

The extensive planning context for Welborne is set out in the Planning Statement which accompanies this DAS and is submitted as part of this OPA. As such, this section only seeks to provide an overview of the key planning documents which have shaped our proposals in terms of their design and access. These include strategic policies, development management policies and other material considerations.

The Development Plan

The Fareham Local Plan Part 1: Core Strategy (2011) provides the strategic direction for the site and provided the allocation for the Welborne Plan area, thus setting the context for the proposals in this planning application.

Fareham Local Plan Part 1: Core Strategy (2011)

In this document, the Strategic Development Area (SDA) now known as Welborne, was identified as a focus for development in Fareham with '6,500-7,500 homes, up to 90,750 sq.m employment floorspace, a new district centre and other supporting retail and community provision' (paragraph 3.12).

The Core Strategy provides the allocation of the SDA, the historic background and the justification for the broad allocation with Policy CS13 North of Fareham SDA. This policy and its supporting text (paragraphs 5.67-5.146) provides the framework and allocation which was followed in the Welborne Plan (discussed below). The Core Strategy also sets out the detailed work undertaken by FBC and the Partnership for Urban South Hampshire (PUSH) to ascertain the optimum area for the SDA site, and the further work to assess the capacity and suitability of the selected site.

The Core Strategy also set out a vision for the SDA, developed through consultation with stakeholders and

members of the public, and a set of high level development principles. Policy CS13 also stipulates that an Area Action Plan (subsequently the Welborne Plan) will be produced to guide planning permission for between 6,500-7,500 dwellings.

Fareham Local Plan Part 3: The Welborne Plan (2015)

This entire part of the Local Plan is focused on the North Fareham SDA, which was subsequently named the Welborne Plan. It is a comprehensive document setting out direct planning guidance for this site, and provides the main policy guidance for this proposed development.

Paragraph 1.61 states that planning applications within the Welborne Plan boundary will need to comply with the policies set out within the Welborne Plan, and be consistent with the Strategic Framework Diagram. Paragraph 1.62 states that planning applications will have to comply with the Fareham Development Plan as a whole, and that the Welborne Design Guidance SPD and the Welborne Planning Obligations and Affordable Housing SPD will also be a material consideration in the determination of planning applications.

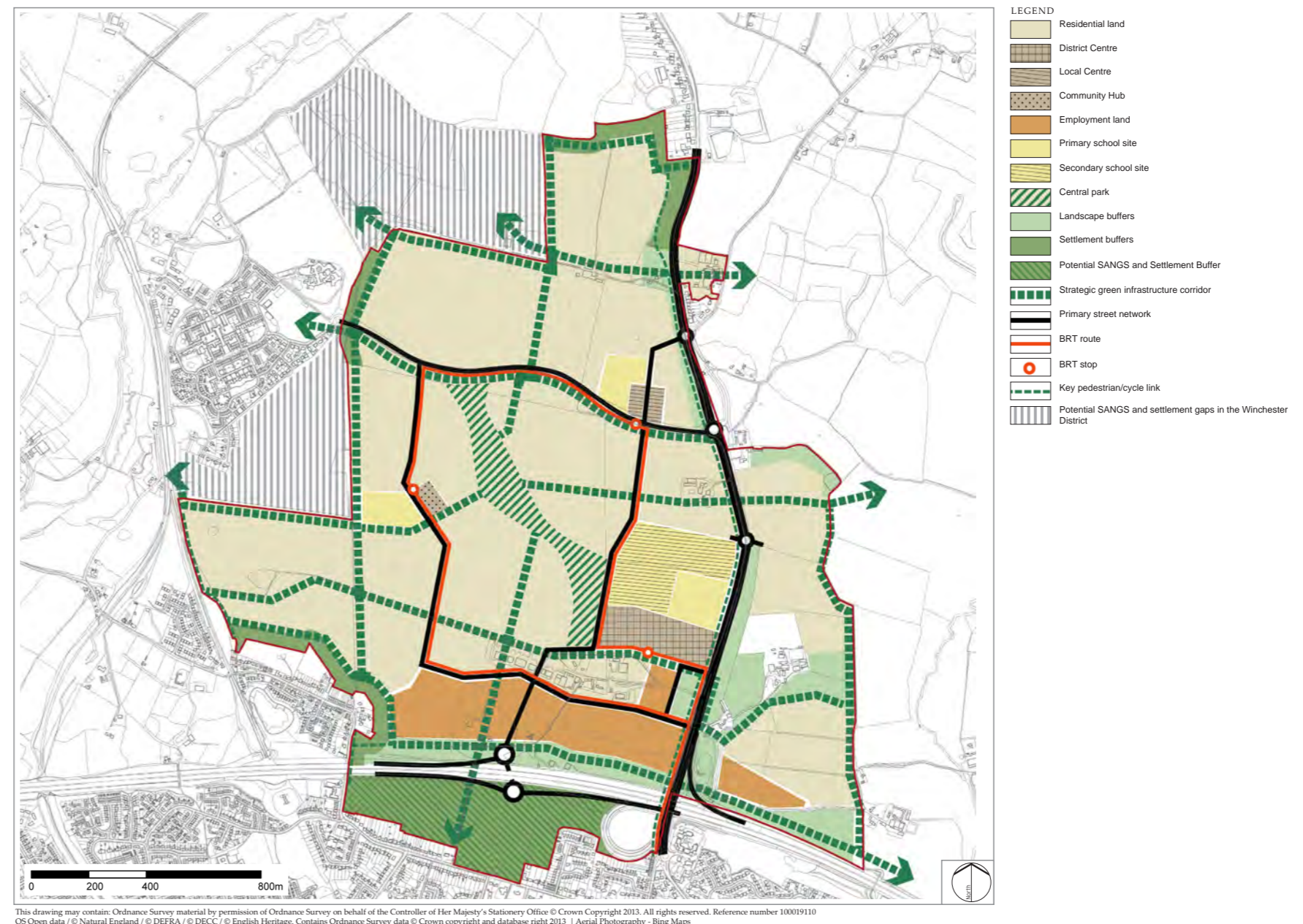
Policy WEL2 contains high-level development principles for the site, which build on and supersede those held within Core Strategy Policy CS13 and can be summarised as follows:

- The new development will become a functional part of Fareham and wider South Hampshire area, through its design, transport links, social, economic and environmental aspects.
- The community will invoke high standards of sustainable design and resource efficiency, with dwellings provided across a range of types and tenures.

The development will aim to achieve 30% affordable housing, subject to viability.

- The development will provide a range of employment opportunities which will be highly accessible, to reduce the need to travel and to support self-containment.
- Strategic Green Infrastructure will be provided to support the development, with open spaces and recreational facilities which enhance the landscape qualities and biodiversity of the area.
- Green buffers will be incorporated into the layout to prevent coalescence with Knowle, Wickham, Funtley and Fareham.
- The new community will aim to have high levels of self-containment, which will be reflected in the transport strategy for the area. Bus Rapid Transit (BRT) will provide a key component to this strategy, with key transport interventions minimising the traffic impacts on the local and strategic road network.
- The development will provide a range of social and physical infrastructure, including community facilities and retail facilities.
- The new community will be designed to incorporate a range of densities and building heights which will be well designed to create a series of attractive spaces that fit well within their surroundings.

The allocation of the land for the Welborne development is covered by Policy WEL3. The land is allocated for approximately 6,000 dwellings and 20ha of land for employment development, with a District Centre to the south of the site, a Village Centre in the north and a Community



Strategic Framework Diagram for Welborne, Appendix B, Diagram B.2 (taken from the Welborne Plan, FBC, 2015)

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- The new development will become a functional part of Fareham and wider South Hampshire area, through its design, transport links, social, economic and environmental aspects.
- The community will invoke high standards of sustainable design and resource efficiency, with dwellings provided across a range of types and tenures. The development will aim to achieve 30% affordable housing, subject to viability.
- The development will provide a range of employment opportunities which will be highly accessible, to reduce the need to travel and to support self-containment.

11.3 Site location

Strategic location

The site occupies a central location in the South Coast Solent region - the most urbanised area in the south of the UK excluding London. As shown in Figure 9.1, Welborne is located north of the M27 (Junction 10) in Hampshire with the A32 running north-south through the eastern part of the site. It is located north of the town of Fareham and adjacent to the existing settlements of Wickham to the north, Funtley to the southwest and Knowle village to the northwest. It is also close to major centres within South Hampshire, namely Portsmouth, Southampton and Gosport.

In addition to these international gateways - with access via Southampton Airport and Portsmouth Harbour - there are a number of sub-regional transport nodes that provide links to the capital and other major towns. Trains services to London operate from Fareham, Portsmouth and Southampton, whilst road access to the capital is provided by the M3 and A3. Train services and the road network also connect Southampton and Portsmouth to other locations along the south coast, with continuous rail services running west to Weymouth, and east to Brighton.

The wider area also benefits from a number of significant cultural, leisure, natural and historic attractions including the South Downs and the New Forest National Parks, the Solent shoreline and numerous visitor attractions associated with the area's naval history.



Figure 11.1 Strategic context

Site description

The Welborne site covers approximately 377 hectares of largely arable countryside and is located north of Fareham in Hampshire, at the intersection of Junction 10 of the M27 and the A32. The village of Wickham lies one mile north of the site, whilst the villages of Funtley and Knowle are located adjacent to the site in the south west and west respectively. An area of woodland (approximately 38 hectares) known as Dashwood is located immediately northwest of the application site.

Figure 11.2 shows the red line boundary of the site which is bounded:

- to the north by the southern edge of the residential properties on Crockerhill, on Hoad's Hill, A32, Dashwood and fields;
- to the east by field boundaries and arable countryside (but excluding the sites of Boundary Oak School, Albany Business Centre and Albany Farm House);
- to the south by North Fareham; and
- to the west by the railway line and the borough boundary between Fareham Borough Council and Winchester City Council and partly by an area of open arable land known as the Knowle Triangle.

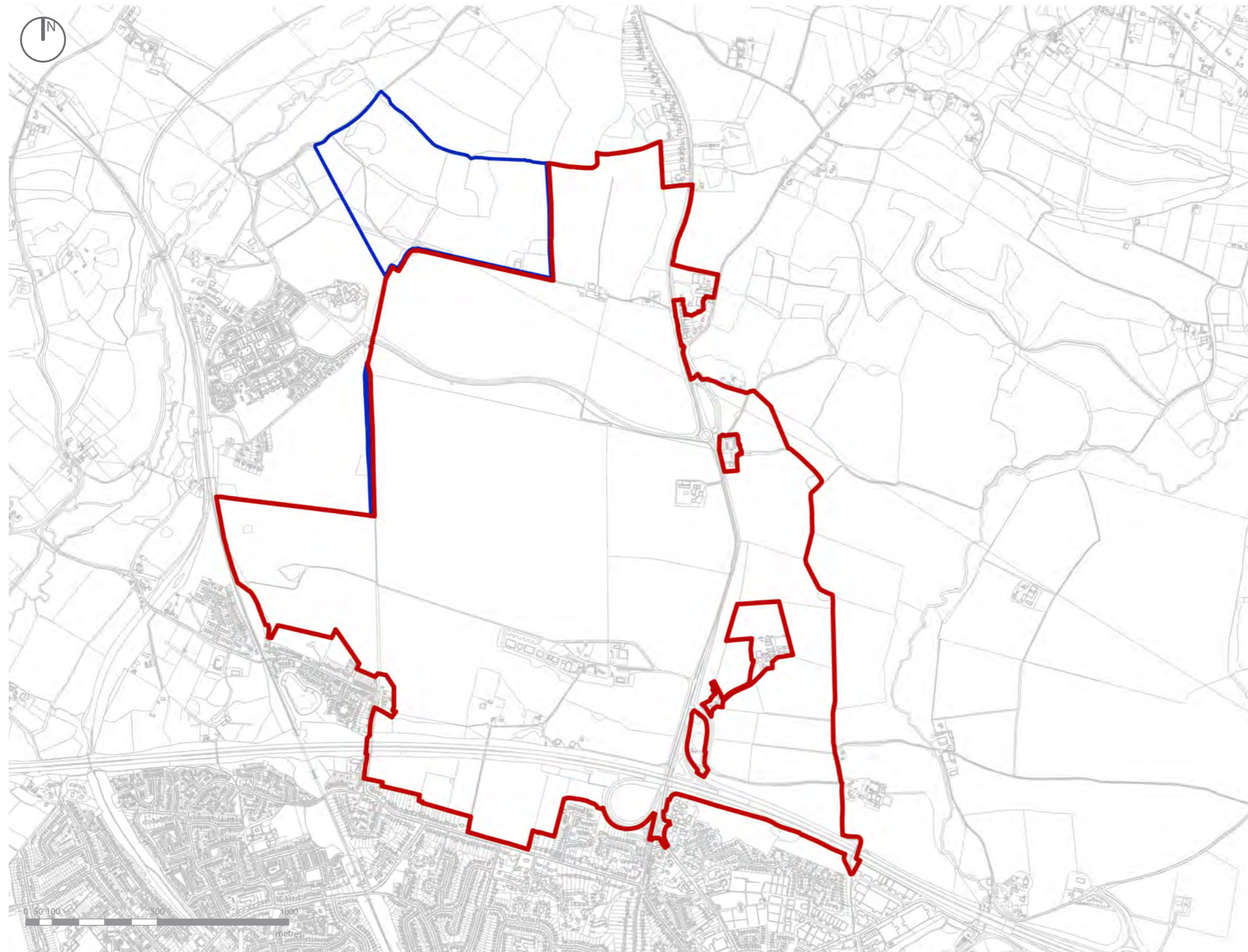
Figure 11.2 also shows - for context and information only - the blue line boundary of the adjacent site of Dashwood. This will form part of the SANGs provision for the new community, but is outside the Outline Planning Application (OPA) and subject to a separate full planning application to Winchester City Council. The OPA site, outlined in red, is within the Borough of Fareham.

The site is located within the context of a number of important green infrastructure assets: Dashwood, a large woodland located on the northern boundary of the site;

Blake's Copse, a woodland located in the north east of the site; Fareham Common, south of the M27; the South Downs National Park, located to the north; and the Meon and Wallington valleys to the west and east respectively.

There are three key roads crossing the site: the A32, a local artery running north-south through the eastern part of the site; Knowle Road, running east-west across the site; and the M27 running through the southern part of the site.

The Eastleigh to Fareham Train Line forms a western boundary to the site with the nearest station at Fareham. A number of existing public rights of way (PROWs) cross over the site or run parallel to the site boundaries. Sustrans cycle route 224 runs near the western boundary of the site. A local bus service, Route 20, operated by First in Hampshire runs through the site, connecting it to Fareham and Wickham via Knowle Road and the A32. A Bus Rapid Transit (BRT) scheme run by Eclipse has been recently introduced to alleviate peak time congestion in the area. The route begins about 1km to the south of the site in central Fareham.



Key




-  Application site boundary
-  Land in control of applicant but not included in the planning application
-  Existing woodland and footpath to be retained along the Knowle triangle edge

Figure 11.2 Site boundary and location

11.4 Topography, hydrology & geology

Topography

Welborne is located within the wider lower-lying and gently undulating plain of the South Hampshire Lowlands. In general, the site slopes down towards the south, with the lowest lying land (at approximately 15m AOD) adjacent to the motorway (see Figure 11.3). Dashwood is located on a slight ridge in the wider landscape, at approximately 50m AOD. There are localised gentle undulations east-west across the site.



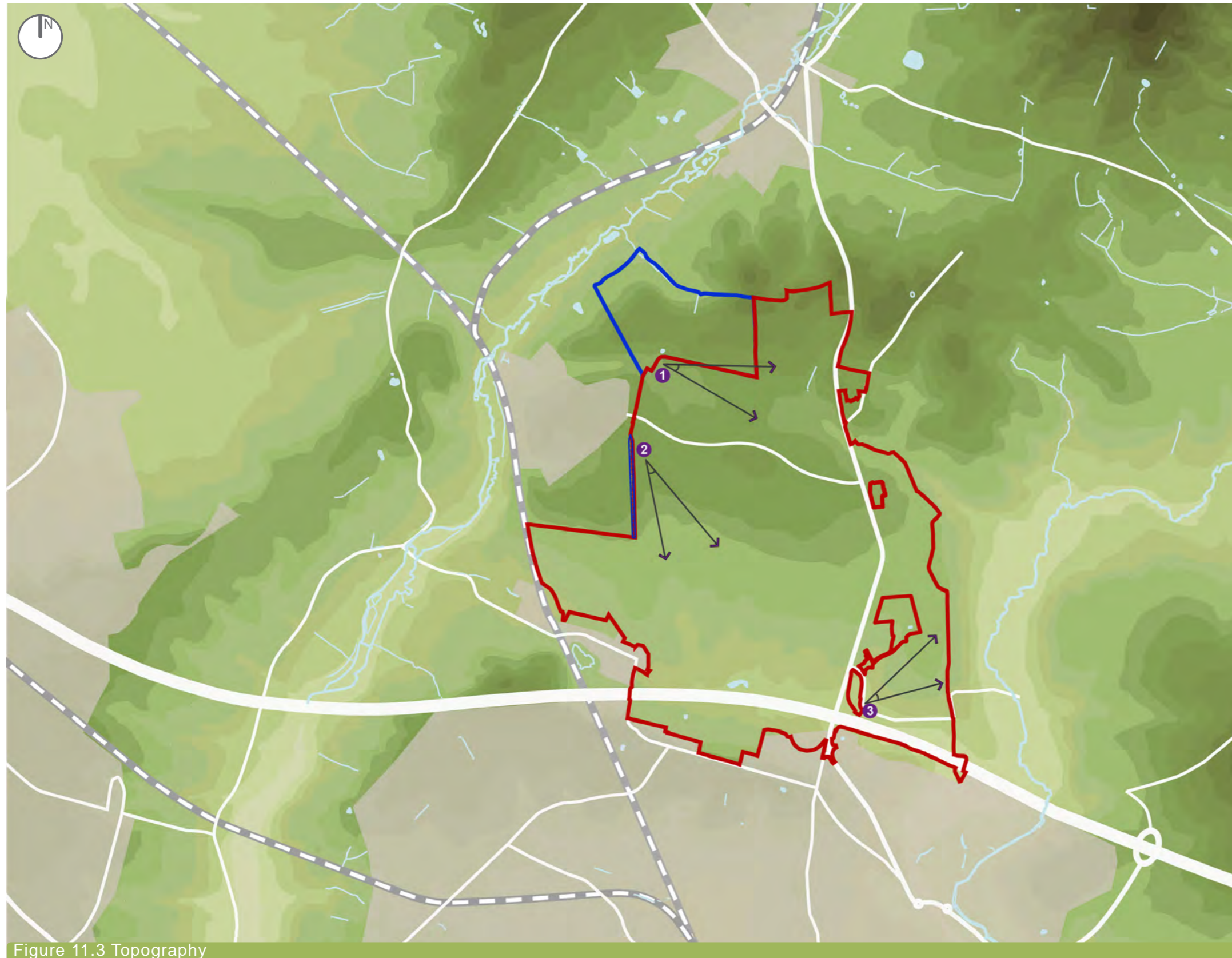
1. Looking south-east towards the Spinnaker Tower, Portsmouth



2. Looking east at the edge between Dashwood and the site boundary



3. Looking east towards Pook Lane



Key








-  Application site boundary
-  Land in control of applicant but not included in the planning application
-  Existing woodland and footpath to be retained along the Knowle triangle edge
-  Rivers, water bodies and watercourses
-  Urban areas
-  Railway
-  Vista

Figure 11.3 Topography

Hydrology

Watercourses and drainage

The site's subsoil is predominantly chalk bedrock and is considered to drain via infiltration to underlying soil and natural runoff.

There are no major watercourses within the site, although two main rivers lie near its eastern and western boundaries. The Wallington River lies approximately 235m east of the site, whilst the River Meon is located approximately 300m to the west. There are a number of ditches that offer surface water drainage away from the site, including those at the southwest boundary by Funtley, and a channel that runs from Crockerhill on the eastern boundary into the Wallington River. There are also ditches along the toes of the M27 embankment, which outfall towards the Wallington.

Flood risk

In terms of flood risk, the site is assessed as:

- being at negligible risk of coastal and tidal flooding (as well as flooding from reservoir and canal infrastructure);
- having less than a 'very low' risk (less than 0.1% annual probability) of river or sea flooding;
- being predominantly at 'very low' risk of surface water flooding (less than 0.1% annual probability) but with areas of low (0.1-1%), medium (1-3.3%) and high (3.3% or above) risk located in the south, adjacent to the M27, the northeast associated with a dry valley that falls towards the northeast boundary at the A32, and several other very small locations across the site; and
- being at low risk of groundwater flooding, flooding from sewer and drainage infrastructure.

Further detail is provided in the Welborne Flood Risk Assessment which forms part of this OPA. Figure 11.4 opposite, summarises some of the features regarding flood risk

Water quality and aquifer protection

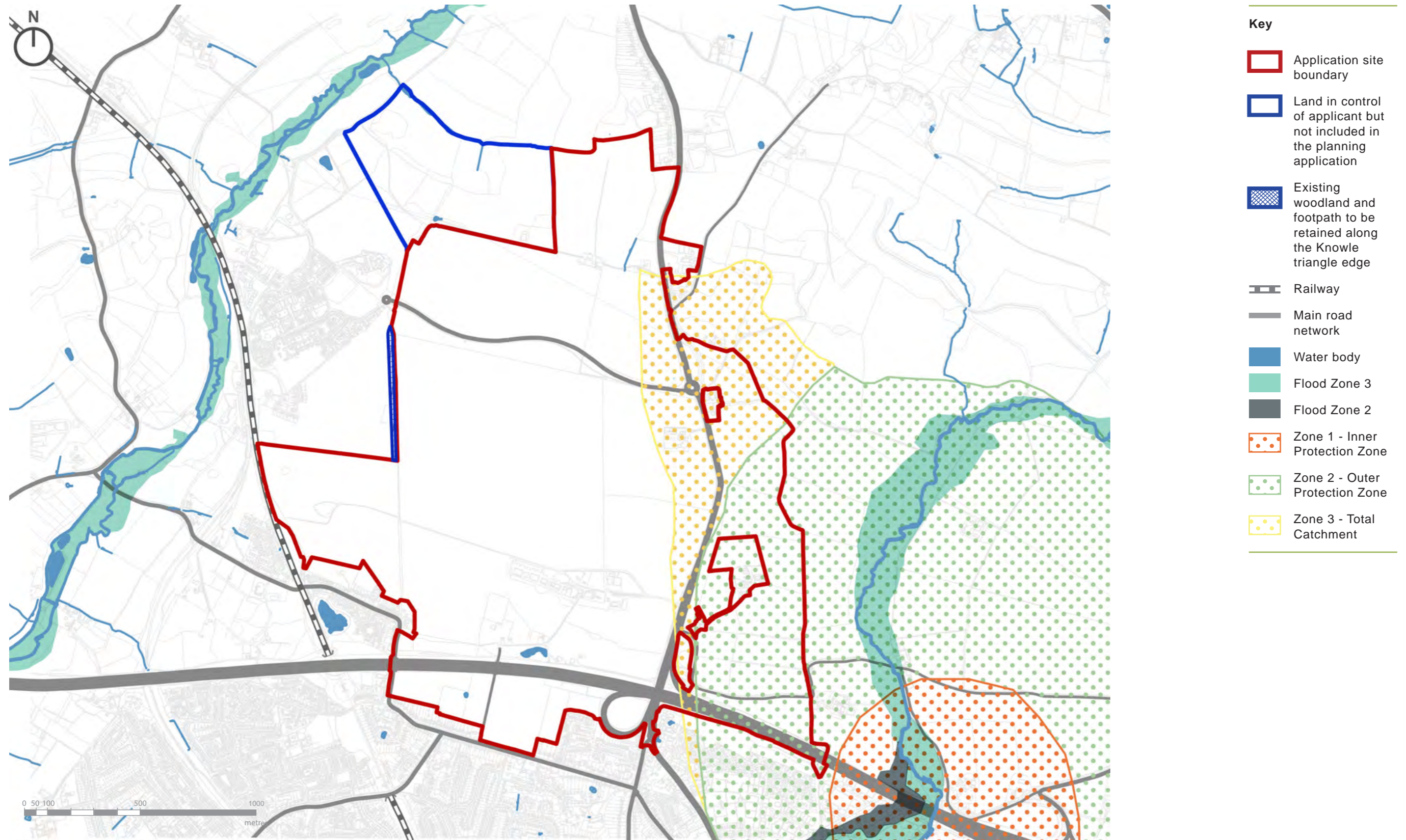
According to the Water Framework Directive (2000), nearby waterbodies need to meet at least "good" status by 2027. The River Meon is presently classified as being in a "good" condition, however, the Wallington River is classified as "moderate". The "moderate" status of Wallington River can be attributed to its high phosphate concentrations due to the run off from agricultural land uses. Development of the site offers an opportunity in this respect to improve the overall quality of the river.

Much of the land on the eastern side of the site - mostly east of the A32 and a strip of land west of the A32 as far west as Charity Farm - is within a groundwater source protection zone (SPZ), the Maindell SPZ which is a potable water source. None of the site lies within SPZ 1 which is the inner protection zone but the eastern part of the site lies within zones 2 and 3. In these zones, surface water run-off can be discharged but will need to be managed through sustainable drainage systems (SuDS).

Further detail is provided in the Welborne Flood Risk Assessment which forms part of this OPA.

Geology

As discussed above, the site is underlain by chalk which forms the outlying ridge of Portsdown Hill. The site sits on seasonally wet soils. The southern part of the site, around Funtley and the M27 corridor, is prone to seasonal flooding and waterlogging, as water drains down the slopes to the lower lying land.














- Key**
-  Application site boundary
 -  Land in control of applicant but not included in the planning application
 -  Existing woodland and footpath to be retained along the Knowle triangle edge
 -  Railway
 -  Main road network
 -  Water body
 -  Flood Zone 3
 -  Flood Zone 2
 -  Zone 1 - Inner Protection Zone
 -  Zone 2 - Outer Protection Zone
 -  Zone 3 - Total Catchment

Figure 11.4 Hydrology

11.5 Landscape & visual character

Landscape character

The landscape character of the site and surrounding countryside has formed an integral part of developing our proposals for Welborne.

National character areas

Natural England has defined National Character Areas (NCAs) for England. Welborne sits wholly within NCA128 South Hampshire Lowlands with NCA126 South Coast Plain immediately to the south and NCA125 South Downs, 5.5km northeast of the site. Natural England guidance for NCA128 suggests that Welborne's green infrastructure (GI) should seek to:

- promote creative and effective sustainable development;
- protect, manage and enhance the area's historic well-wooded character; and
- conserve, manage, link and enhance the traditional mosaic of semi-natural grassland habitats.

Local character areas

The New Community North of Fareham (NCFN), Landscape Study (2012) provides the greatest level of detail in understanding the local and distinct characteristics of the site and its immediate surrounds, and defines four distinct character areas. These are shown in Figure 9.5 and summarised below:

- **Woodland Landscape Character Area** – with woodland cover and enclosure, extending north from Knowle Road to the northern perimeter of Welborne. The strong woodland belt of Dashwood stretches along the northern edge and forms a visually dominant and enclosing landscape feature to this part of the site;
- **Downland Landscape Character Area** – with extensive views and underlying landscape typology of chalk grassland and farmland, it has a strong sense of openness;
- **The Meadows Character Area** – with lower-lying wetter land close to the M27 and the fringe of Fareham, it is characterised by a mosaic of wetlands, meadows, water bodies and tree cover that reflect its low-lying topography and enclosed character; and,
- **Parkland Landscape Character Area** – with an open character and landform that falls gently eastwards towards the Wallington River valley, which along with the strong tree belt along the western edge, create a strong sense of separation from the rest of Welborne.

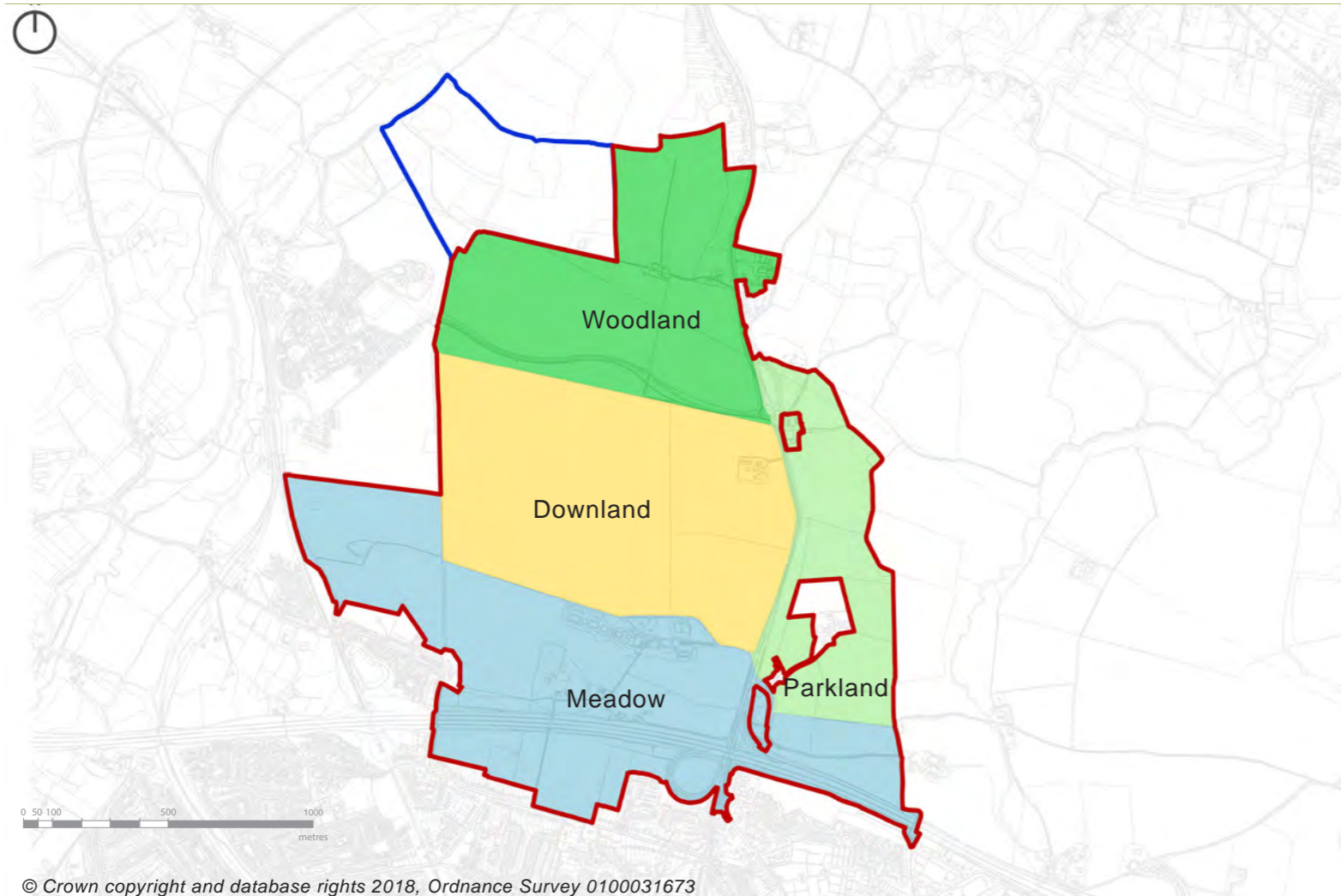
The proposed GI assets and open space at Welborne will be influenced by these four character areas. The design responses within this strategy have been taken to reflect the four character areas and therefore reinforce and respond to the existing landscape framework as far as possible.

Further detail is provided in the Open Space and Green Infrastructure Strategy which accompanies this DAS as part of the OPA.

Visual receptors

There are a number of visual receptors that will have a degree of impact from the proposals in the site:

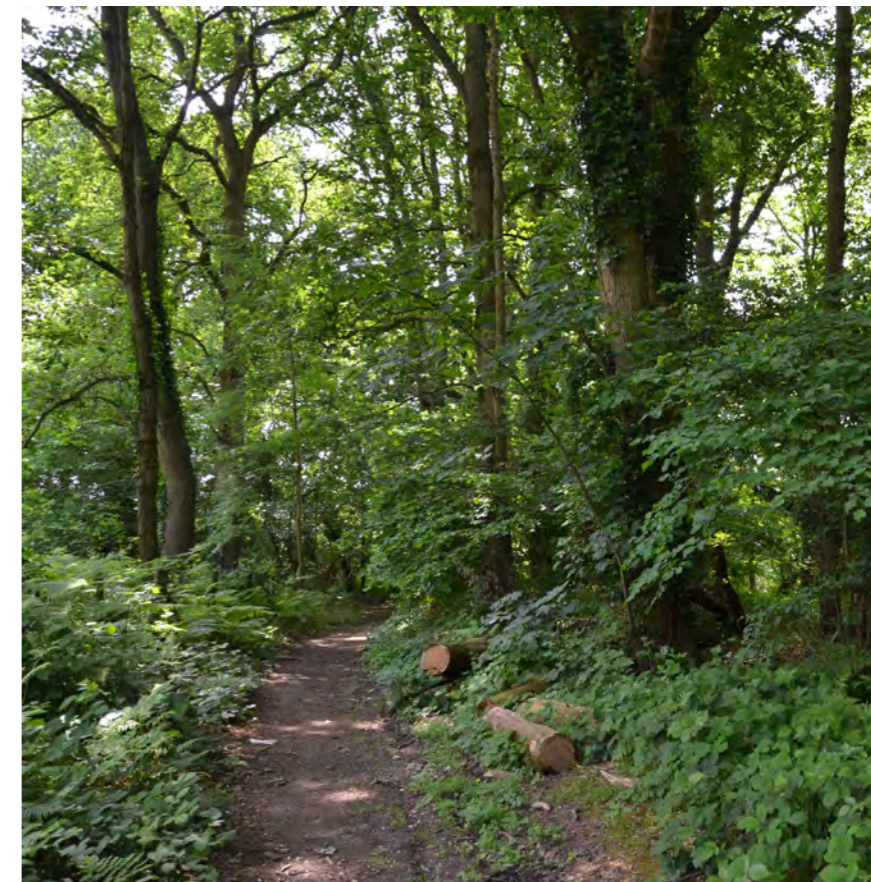
- people living in the settlements of Wickham to the north, Fareham to the south, Knowle to the west and people living in houses scattered in the open agricultural land, particularly to the east;
- visitors to Fort Nelson in the east; and
- people walking on long-distance footpaths within the South Downs National Park to the northeast.



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Figure 11.8 Welborne Plan Character Areas

Woodland character area



Downland character area



The Meadows character area



Parkland character area



11.6 Existing landscape features & green infrastructure

General overview

The existing context to the site is important in not only defining the provision of GI at Welborne, but also in understanding how Welborne will connect with its surroundings and maximise the opportunity of linking with off-site GI.

The site is located within the context of a number of strategic GI assets that are important to the delivery of GI both within the region and at a local level. At a larger scale, these assets include landscapes designated for their recreational and amenity value, such as the South Downs National Park. At a smaller scale, this includes areas of designated open access land that function as important recreation and play facilities for local communities.

Key landscape features and GI

The key features are:

- **Dashwood** - large woodland located on the northern boundary of the site, part of which is designated as ancient woodland and currently accessed by one public right of way and a network of permissive footpaths. The woodland is a valuable resource in terms of habitat, biodiversity and recreation. Parts of the woodland are currently managed as working forestry areas and for leisure. Dashwood also contributes to the wider landscape character. This area provides a strong visual screening from the north towards the Site. This part of the landscape is suitable for the provision of SANGs.
- **Blake's Copse** - this is a large woodland located in the north east of the site, adjacent to the A32, and is designated as ancient woodland as it makes an

important contribution to the character of the site and the wider landscape and provides a visual screen along the A32 and from views towards the site from the north east.

- **Fareham Common** - land south of the M27 motorway which comprises agricultural land, species-rich grassland designated as a SINC, scrub, trees and shrubs along the M27, and common open green space to the north of Kiln Road, Fareham.
- **South Downs National Park** - the South Downs National Park is located north of Welborne. One of the purposes of National Parks is to promote the enjoyment of the special qualities of their areas, thereby promoting recreational access. The South Downs National Park therefore, provides a network of well-maintained public rights of way accessing the surrounding countryside and is an important existing GI asset in close proximity to Welborne.
- **Meon Valley** - this river valley lies to the west of Welborne. The Meon River flows southwards into the Solent. There is limited public access to the river corridor.
- **Wallington Valley** - the Wallington River is located to the east of Welborne and flows south into Portsmouth Harbour.
- **The Solent, Coast and River Hamble Estuary** - these are significant GI assets that offer recreational value through both walking along the coast and enjoying the bays, and interacting with the water and taking part in water sports.

Ecology

Near the site there are two Special Protection Areas (SPA) and RAMSAR designations - the Solent and Southampton Water SPA and RAMSAR and Portsmouth Harbour SPA and RAMSAR within 10km of the site, as well as one Special Area of Conservation (SAC) - the Solent Maritime SAC. There are also 59 Sites of Importance for Nature Conservation (SINCs) and 58 areas of ancient woodland within 2km of the site.

The site is predominantly arable land with grassland habitats associated with farmland and includes four locally important SINCs within the site boundary at Blakes Copse, Dashwood, Knowle Hospital Row and Fareham Common. These SINCs include lowland meadow, lowland mixed deciduous and wet woodland habitats and are considered priority habitats and which have the potential to support protected species and species of conservation concern (e.g. invertebrates, reptiles, bats and dormice).

The Desk Study and Extended Phase 1 Habitat Survey (Ref.19) - which is submitted alongside this DAS as part of this OPA - recommends:

- GI should be designed to maximise ecological connectivity;
- Ancient semi-natural woodlands within the site should be protected from all development activities by an appropriate buffer zone;
- Other semi-natural and plantation broadleaved woodlands and hedgerows should be retained and enhanced where possible; and
- Priority habitats should be retained where possible, or provided elsewhere on site to maintain habitat balance.



Figure 11.6 Existing key landscape features and GI

11.7 Existing movement network

Road access

There are three key roads serving the site, as shown in Figure 11.7:

- **A32 (Wickham Road)** - the A32 is a local artery running north-south through the eastern part of the site. It is predominantly a single lane carriageway in each direction, providing a rural strategic link connecting settlements in the north from Wickham and beyond to Alton, to the M27 and onwards south to Fareham and Gosport. It also serves as a clear marker between the central area of the site and the eastern parcel of land and will provide new points of access along its route for new development at Welborne.
- **M27** - the M27 runs east-west through the southern part of the site, with access available via a slip road from the A32, Wickham Road. The M27 provides a connection along the Solent Coast linking Portsmouth, Fareham, Whiteley, Hedge End and Southampton. It is predominantly three lanes in each direction. Welborne is located at Junction 10 which provides a limited link from the M27 to the A32. A key consideration here is the noise and air quality issues stemming from the motorway traffic, influencing the types of development possible in the areas immediately adjacent to the motorway.
- **Knowle Road** - this is a local, single lane carriageway running east-west across the site, linking the A32 to Knowle Village in the west. This road will define the northern part of the site, served by the Village Centre, whilst also playing an important role in enabling a route for public transport.

There are a number of vehicular access points to the site that will have helped inform the Access and Movement Framework for Welborne as set out in Chapter 6 of this DAS:

- A32 access to the Sawmill Estate, Heytesbury Farm, Charity Farm, Dean Farm Estate, and land immediately north of the M27;
- access from Kiln Road south of Fareham Common which goes under the M27 north into the site towards Dean Farm Cottages;
- current Junction 10 arrangements onto the M27; and
- Nine Elms Lane in the east, leading to Pook Lane in the southeastern corner of the site.

Rail access

The Eastleigh to Fareham Train Line operated by South West Trains forms the western boundary of the site. The closest railway station is at Fareham, situated approximately 3km to the south of the site, which can be accessed via a short busy journey of 11 minutes using the number 69 service. Rail services provide links to Portsmouth, London Waterloo, Southampton and Eastleigh.

Pedestrian footpaths

Most of the links in the vicinity of the site have pedestrian provision, predominantly footways adjoining the carriageway. Within the urban environment footways are provided on both sides of the carriageway with dropped kerbs.

There are a number of existing public rights of way (PRoWs) crossing or running parallel to the site boundaries:

- A footpath from the eastern side of Wickham Road, south of the Knowle Road roundabout connects with a series of segregated footpaths linking potential users to North Boarhunt, the north east corner of Fareham and Wallington;
- West of the site various footpaths, bridleways and traffic free cycle routes provide links to Whiteley and the north

west of Fareham. An old railway line provides a link under the M27 to Highlands Road; and

- North of the proposed site a public bridleway has been provided on the old Meon Valley Railway Line.

Cycle network

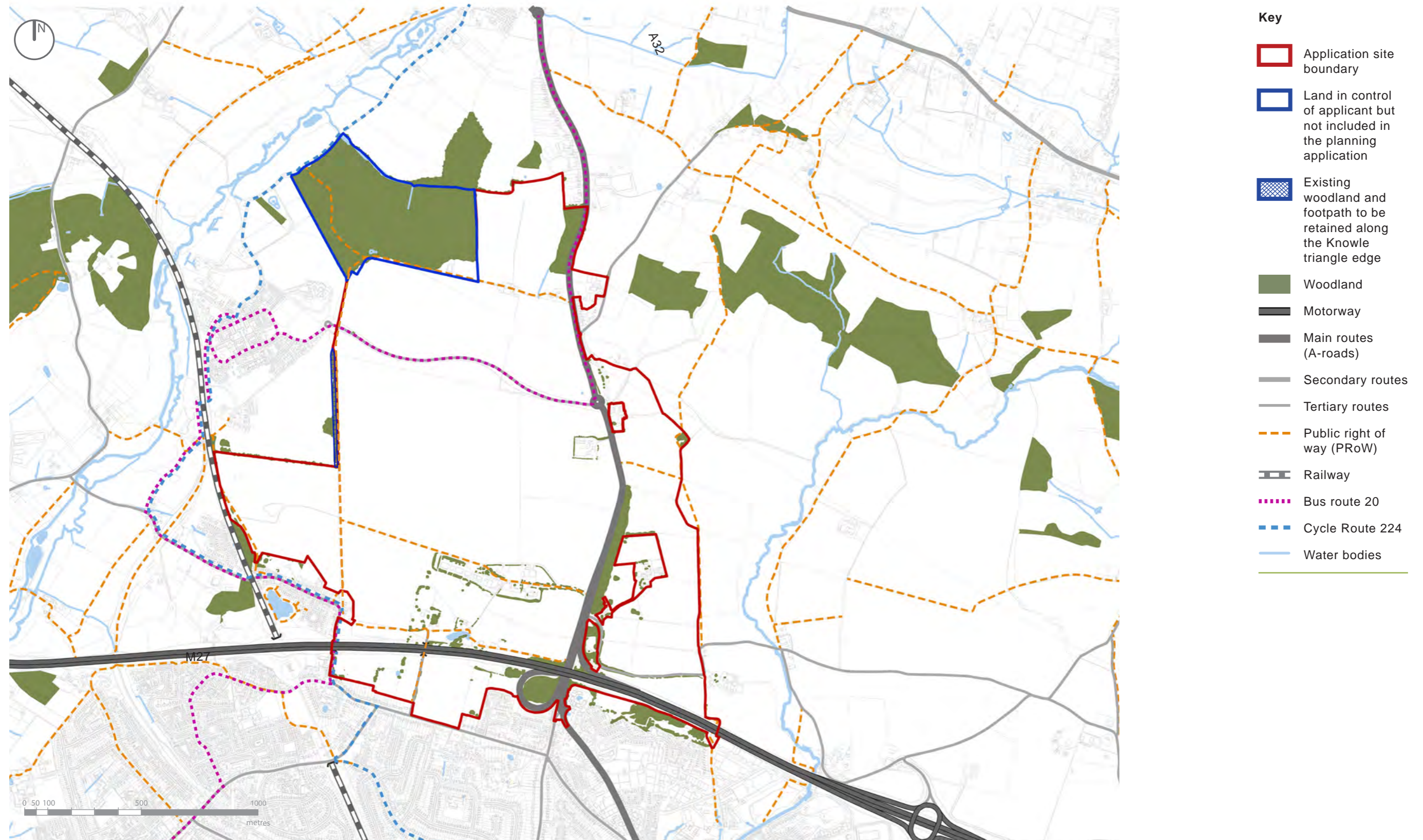
There are limited formalised cycle facilities on surrounding roads due to the rural location of the development, with a shared use path on Wickham Road and Knowle Road. National Cycle Network (NCN) Route 224 runs from Wickham to Fareham along Mayles Lane, Funtley Road, Highlands Road, Miller Drive, William Prince Gardens and Southampton Road. The route makes use of existing cycle routes in the area and is signed where no formal provision is provided (Funtley Road and Mayles Lane). Route 224 also connects to local routes and NCN 236 towards Portsmouth.

Public transport

A local bus service, Route 20, operated by First in Hampshire runs through the site, connecting it to Fareham and Wickham via Knowle Road and the A32. The services runs approximately every hour during the daytime. Route 69 serves a stop on the A32 south of Knowle Road, providing an hourly service to Fareham, Wickham and Winchester.

A Bus Rapid Transit (BRT) scheme with a dedicated lane for buses runs between Fareham and Gosport to ease congestion on the A32. The route begins about 1km to the south of the site in central Fareham.

Further detail on all of the above is provided in the Transport Assessment and Framework Travel Plans submitted alongside this DAS.



- Key**
- Application site boundary
 - Land in control of applicant but not included in the planning application
 - Existing woodland and footpath to be retained along the Knowle triangle edge
 - Woodland
 - Motorway
 - Main routes (A-roads)
 - Secondary routes
 - Tertiary routes
 - Public right of way (PRoW)
 - Railway
 - Bus route 20
 - Cycle Route 224
 - Water bodies

Figure 11.7 - Existing movement network

11.8 Existing facilities

Within the site

There are limited facilities within the site at present, as shown on Figure 11.8 these include:

- **Agricultural land use** - predominant across much of the site, comprising large crop fields with associated farm buildings.
- **Employment uses** at the Dean Farm Estate in the centre of the site, and some at Pinks Timber Yard (Sawmill Estate) east of the A32 and just north of residential properties in the southern part of Crockerhill. The Albany Business Centre (Albany Farm) is located outside of the red line boundary of this OPA but its location on the eastern side of the A32 opposite Charity Farm should be considered due to views to and from the locally important building within it.
- **Education uses** - Boundary Oak School is a private boarding school outside of the red line boundary but is located in the centre of the eastern portion of the site and requires operational access from the A32.
- **Residential uses** - there are a small number of residential properties within the site along the northern part of the A32, in the residential hamlet of Crockerhill; and the area immediately north of the M27;
- **Buffers** - land south of the M27 comprises scrub, ponds and open green land to the north of Kiln Road.

There is also a restaurant at Crockerhill within the site, at the junction of the A32 Wickham Road and Forest Lane.

Surrounding land uses and settlements

Surrounding land is also predominantly in agricultural use with an area of woodland to the northwest of the site, Dashwood. Dashwood is part of the old Forest of Bere and contains a broad variety of vegetation. Fareham Common in the southern part of the site is a mixture of agricultural land and unfenced rough grassland, separated by trees and shrubs.

There are four settlements close to the site:

- **Fareham** - a town with a population of some 40,000 persons. It is situated to the south of the site, south of Fareham Common. Much of the housing on the north side of Fareham bordering the site is detached or semi-detached family homes built in the second half of the 20th century. Fareham has a town centre with numerous local shops, a purpose built shopping centre, gym and recreation facilities, community hospital and a theatre/community arts venue. The northeast and town centre of Fareham are predominantly characterised by employment land.
- **Funtley** - a small village separated from Fareham by the M27. It has a population of around 600 people and contains a mixture of detached, semi-detached, and terraced housing in the older parts of the village. It includes a pub, local playground and social club.
- **Knowle** - a village and civil parish with a population of around 1,500 people that borders the site to the northwest. A proportion of Knowle's dwellings are located in the historic, listed part of the former Knowle Hospital. The village has its own community hall, a bar,

beauty salon, convenience shop and estate agent, as well as a small business park to the northwest. A clay target club is located west of the village.

- **Wickham** - this is a former market town, located about 1km to the north of the site on the A23. Wickham is home to around 4,800 inhabitants and includes a mixture of residential, retail and commercial land uses and open spaces including Meon Park and Wickham Common. Wickham Square is one of the largest in the country and includes 15th century cottages and Georgian houses. There is also a golf club to the southwest.

In addition, to the northwest of Fareham is a smaller retail cluster along Highlands Road. This is designated as a "Local Centre" and contains a small number of convenience shops, food outlets, health facilities such as a dentist and pharmacy, and some community facilities.

It will be important for proposals for Welborne to consider the proximity and potential interactions with its neighbouring settlements in order to minimise or avoid impacts, and to maximise benefits for all residents.

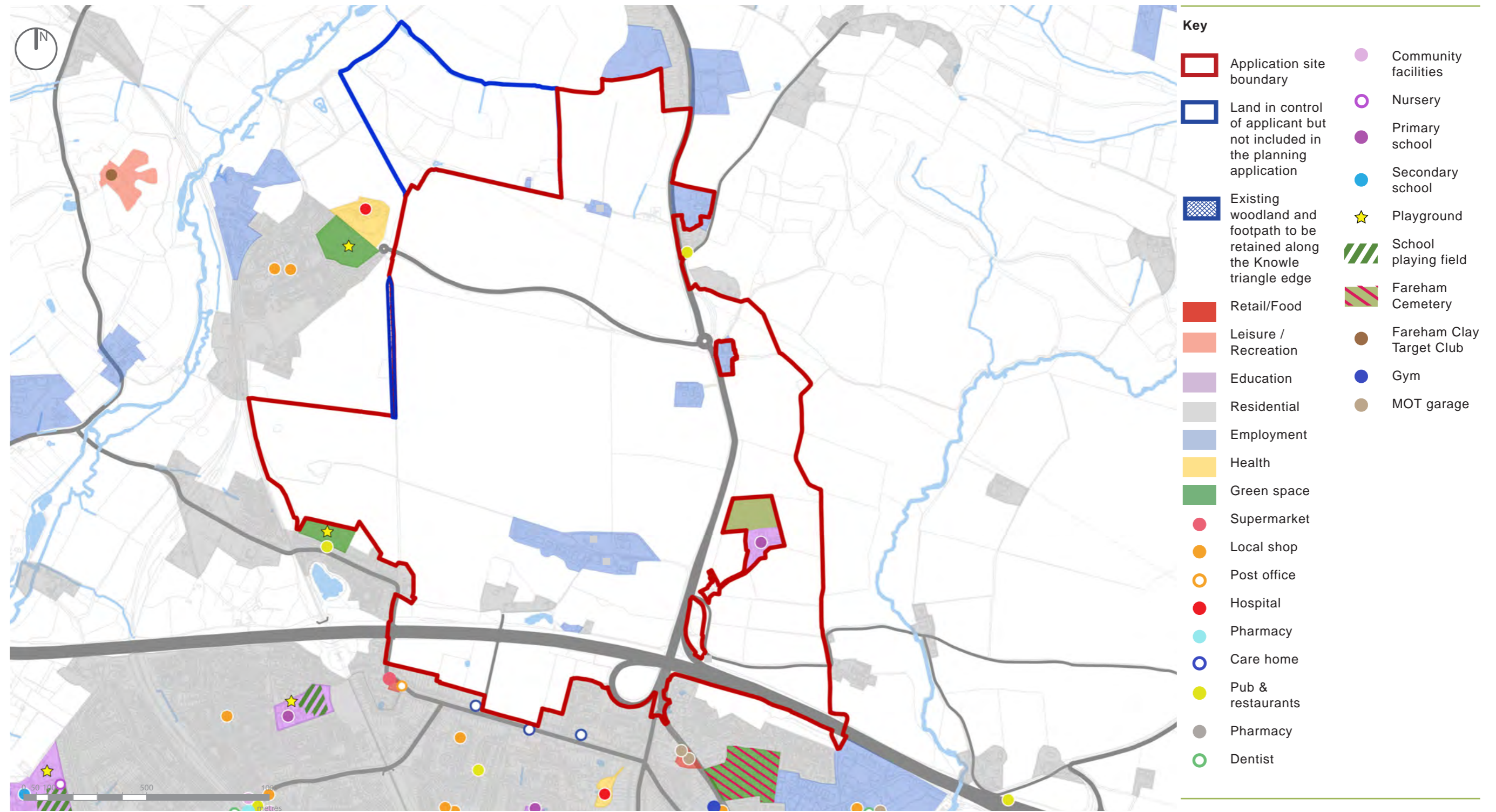


Figure 11.8 Existing local land use and facilities

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11.9 Historic environment

Historical Overview

Fareham was a small market town, of Saxon origin, up until the 19th century when manufacturing industries set up in the town. The two main industries to flourish were brick making and tanning, whilst Fareham's small port supported the export of manufactured goods. The characteristic red brick produced in the town, the Fareham Red, is used in the construction of many 19th and 20th century homes, locally and further afield. The late 20th century saw the development of a number of civic amenities in the town, including a library, law courts, and Fareham Shopping Centre which defined the retail core of the town.

Knowle is a relatively new village in Hampshire and draws much of its origin and character from its changing historical land uses. Though some small farm houses existed previously, the main source growth to the settlement occurred in the late 19th century when the area was determined to be the site of the new Knowle Hospital. Knowle Hospital was closed in 1996, and was later redeveloped in the early 2000s by a consortium of developers and housebuilders. This redevelopment consisted of converting the original hospital buildings into apartments and constructing new houses totally some 550 new dwellings. A small commercial hub known as Knowle Village Business Park was later added to the north of the village.

Funtley – from the Anglo-Saxon, “Funtaleg”, meaning “Springs”, formerly Fontley – is a village in the north of the borough of Fareham, Hampshire, England. The village originally grew from the development of a clay quarry which made Fareham red bricks. The village is no longer a discrete settlement owing to the post-World War II expansion of Fareham, and is now a suburb separated from the main conurbation by the M27 motorway. The brickworks are long closed, the clay quarry is now a fishing lake, and only the village's pub, The Miners Arms, survives as a testament to its former industry.

Wickham to the north was originally a military post and Saxon settlement and has the second largest medieval square in England at the heart of the village. It flourished in the 19th and 20th centuries and is today known as a picturesque village with attractive historic buildings.

Statutory Designations

Within the site there is one Listed Buildings:

- Dean Farmhouse - a Grade II* timber-frame farm building constructed in the 16th century, with later additions. It is located in the centre of the site in the Dean Farm Estate.

Excluded from the site boundary but encompassed by the development are two Listed Buildings at Boundary Oak School in the eastern part of the site:

- Roche Court - a Grade II listed multi-period house with medieval and post-medieval fabric and a variety of architectural features; and
- The Lodge at Boundary Oak School - the associated lodge was built in a Tudor Gothic style in grey brick with red brick dressings.

There are a number of Grade II Listed Buildings in close proximity to the site boundary including: the Church of St Francis in Funtley; the former 'County Lunatic Asylum' building at Knowle Village; House at Saw Mill (Pink & Company Ltd); Furzehall Farm Farmhouse; North Fareham Farmhouse; and various cottages and a farmhouse building at Spurlings Industrial Estate. A farm range at Albany Farm is locally listed.

Additionally, the site is located near (beyond 1km away) three Scheduled Monuments:

- The site of post-medieval Funtley Ironworks;
- World War II anti-aircraft battery at Monument Farm; and
- Fort Nelson is a Grade I listed fort building, less than 3km east of the site. Its prominence within the landscape makes it relevant for Welborne.

Archaeology

An archaeological study undertaken by Wessex Archaeology in January 2013 found a buried archaeological feature within the site, a Neolithic long barrow located at the centre of the site. The long barrow is a trapezoidal monument, defined by its length of 53m and two adjacent ditches measuring 11m apart. Long barrows are relatively common across the county and as it is ploughed out, retaining no surface expression, it is considered to be of medium heritage value.

Further information on this topic is provided in the Heritage Statement submitted alongside this DAS.

11.10 Existing utilities and infrastructure

Utilities

Gas supply

The regional Gas Distribution Network Operator for the area is Southern Gas Networks (SGN). There are high pressure and intermediate pressure mains running through the centre of the site in parallel from southeast to northwest, as shown in Figure 9.9 overleaf. SGN has advised an 8 metre easement, to either side, for both of these mains.

The Health and Safety Executive has advised that the high pressure mains has Inner and Middle Zones with a consultation distance of 3 metres for both, less than the SGN easement. The Outer Zone of the consultation distance is 195 metres, giving a total width of 390 metres where uses such as large schools, hospitals and care homes - i.e. where there might be congregations of large numbers of vulnerable users - should not be located.

Electricity supply

Scottish and Southern Energy (SSE) are the Distribution Network Operator for electricity supply in the area. As shown on Figure 9.9, a 132kV overhead line runs east-west across the northern area of site near Knowle Road. This line has an advisory stand-off distance of 30 metres for residential development.

The records also show a 33kV overhead line crossing the southern part of the site and a number of 11kV overhead lines and low voltage cables across the site.

Water supply

The water supply company for the Welborne area is Portsmouth Water. Portsmouth Water has several water mains which cross the site, west of the A32, including two trunk mains as shown in Figure 9.9. These are likely to influence the positioning of streets, open spaces and buildings to ensure an appropriate easement is maintained, as well as publicly accessible areas for maintenance and servicing.

Foul sewerage

Southern Water is the sewerage undertaker for this area. The Sewage Treatment Works (STW) for existing site uses and the Fareham area is Southern Water's Peel Common STW located south of Fareham. Albion Water operates the STW on the north side of Knowle.

Due to water quality considerations relating to the River Meon and downstream Special Protection Areas, it is intended that the site will discharge to Southern Water's Peel Common STW.

Infrastructure

Motorway

The southern part of the site is dominated by the M27 which runs east-west through the site. Traffic on the motorway generates significant amount of noise and new development adjacent to it will need to include measures to reduce the impact of the noise. This will also influence what type of land uses might be best located next to the motorway.

The air quality in this area is mainly influenced by emissions from road traffic, particularly those using the M27 and the A32.

Railway

The Eastleigh to Fareham line runs north-south, immediately to the west of the site boundary. Although outside the site boundary, it is an important piece of infrastructure affecting the land to the west. As with the motorway and the A32, railway noise has also been noted by baseline surveys (undertaken in 2012 and 2014) to contribute to the noise climate.

Further detail on the baseline noise climate is provided in the Noise Impact Assessment submitted alongside this DAS.

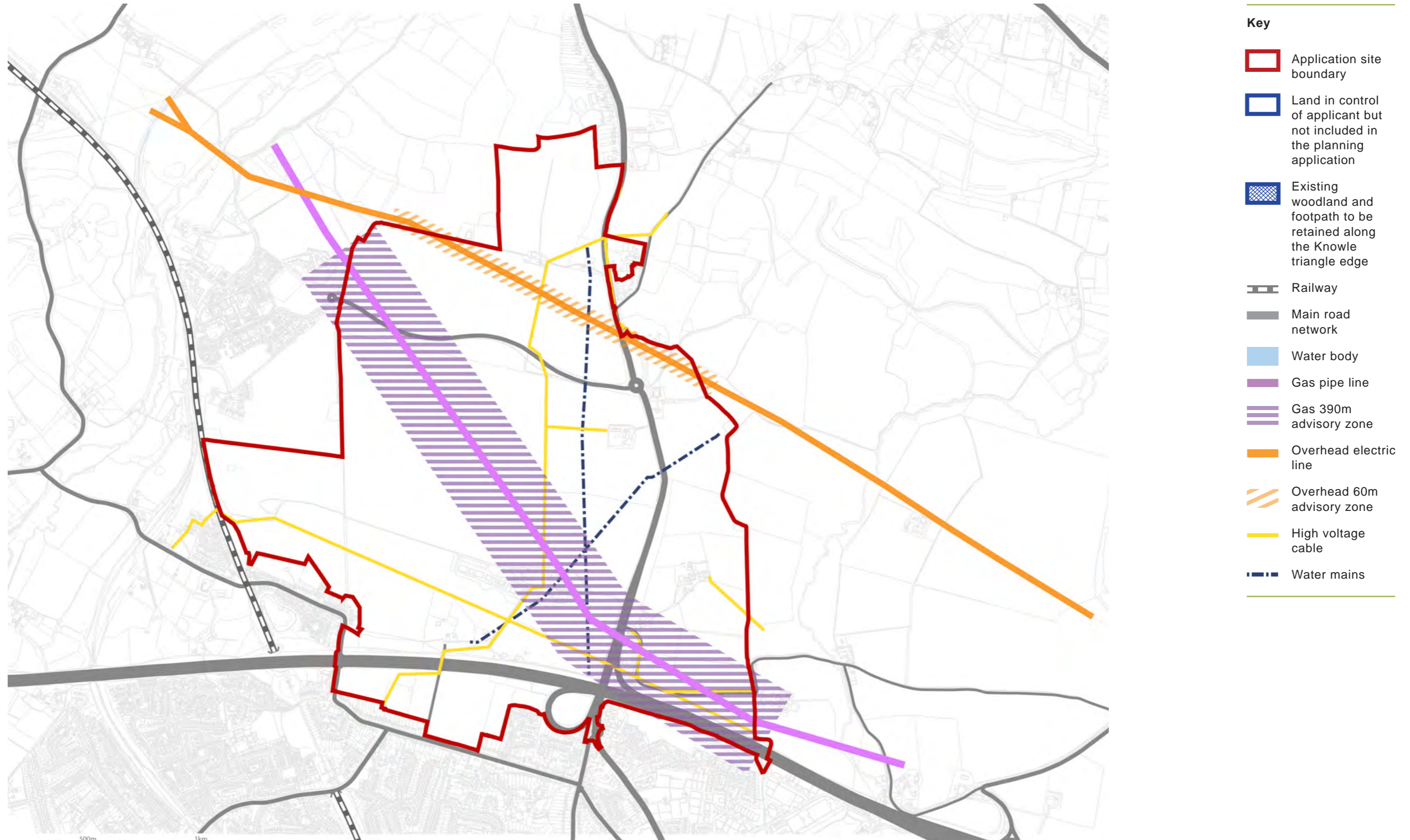


Figure 11.9 Existing utilities

11.11 Site analysis

Key factors

This section summarises the most important factors from the existing context which play an important role in influencing our development proposals for Welborne. These are set out diagrammatically here, by theme and a composite site constraints plan is shown on the following pages.

Existing settlements and uses

Development at Welborne needs to consider the needs of the neighbouring settlements of Knowle, Funtley, Wickham and Fareham. In particular, development need to avoid coalescence with these communities whilst at the same time making connections so that existing residents can benefit from access to new facilities, if desired.

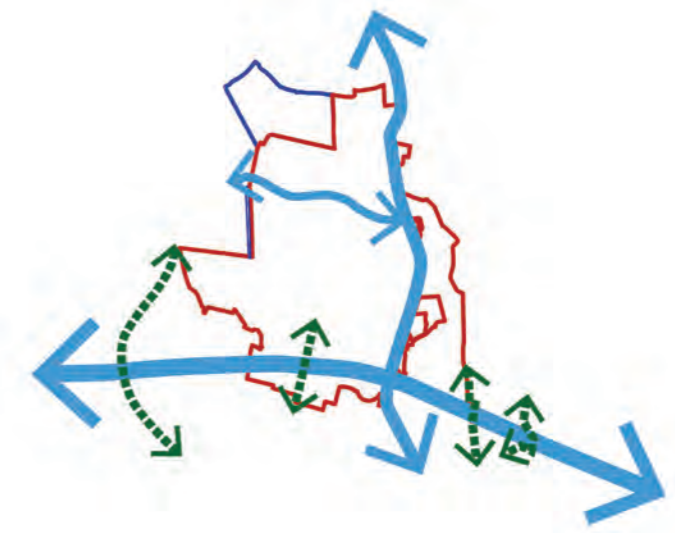
Existing roads

Development at Welborne will need to:

- incorporate and improve the existing road network in its layout;
- use the existing and new road network to help identify where new centres should be; and
- consider the overall impact of additional traffic on the existing road network.



Existing settlements



Existing roads, cycle and pedestrian routes

Green infrastructure

The layout of Welborne will need to consider:

- how to capitalise on the Meon and Wallington river valleys and Dashwood to the northwest;
- how best to incorporate Fareham Common into the new development; and
- long views and the settings of Portsdown Hill and the protected coastline, including from the South Downs National Park.

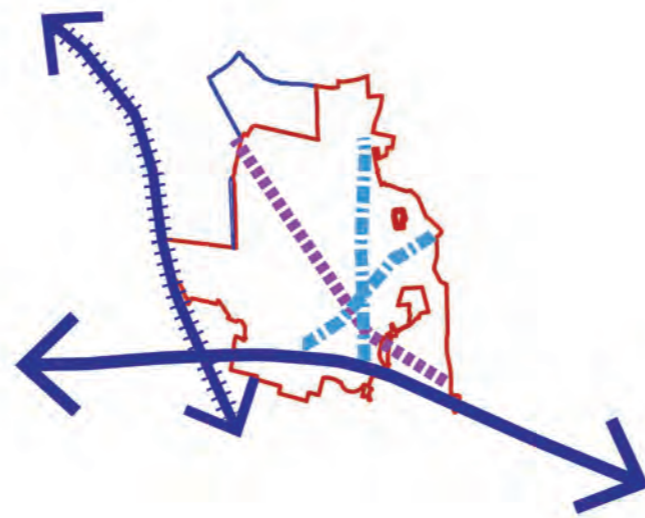


Existing green infrastructure

Utilities and infrastructure

Proposals will need to take into account:

- the two significant gas mains which cross the site and determine which uses can be within specific distances of the pipes (as they will not be diverted as part of this development);
- overhead power lines which cross the site; and
- the noise generated by motorway traffic on the M27.

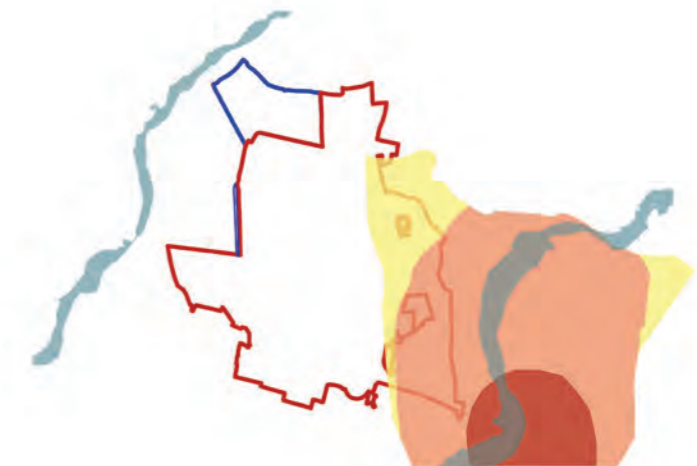


Existing utilities and infrastructure

Aquifer

Development at Welborne will need to ensure that:

- any surface water discharge from any buildings or roads in the eastern area within the Source Protection Zone (SPZ) will be carefully managed and treated prior to discharge.




















Aquifer and Source Protection Zones

Summary of the physical context

Figure 11.10 provides an overview of the site analysis covering the key factors. These site constraints have informed the layout for Welborne, along with a number of design influences which are set out in Chapter 11. These influences include lessons learnt from the enduring popularity and tradition of Garden Cities and Suburbs, and the local vernacular of Hampshire towns and villages. The synthesis of these physical and design influences, together with input from stakeholders (see Chapter 10), formed the basis of our vision for Welborne.

Key

- | | | | |
|---|--|---|----------------------------|
|  | Application site boundary |  | Water body |
|  | Land in control of applicant but not included in the planning application |  | Flood risk zone 2 |
|  | Existing woodland and footpath to be retained along the Knowle triangle edge |  | Flood risk zone 3 |
|  | Woodland |  | Local authority boundary |
|  | Shrubs |  | Historical ruins |
|  | Railway |  | Powerline |
|  | Main road network |  | Water main |
|  | Public right of way (PRoW) |  | Gas pipe line and easement |
|  | Hedgerows | | |

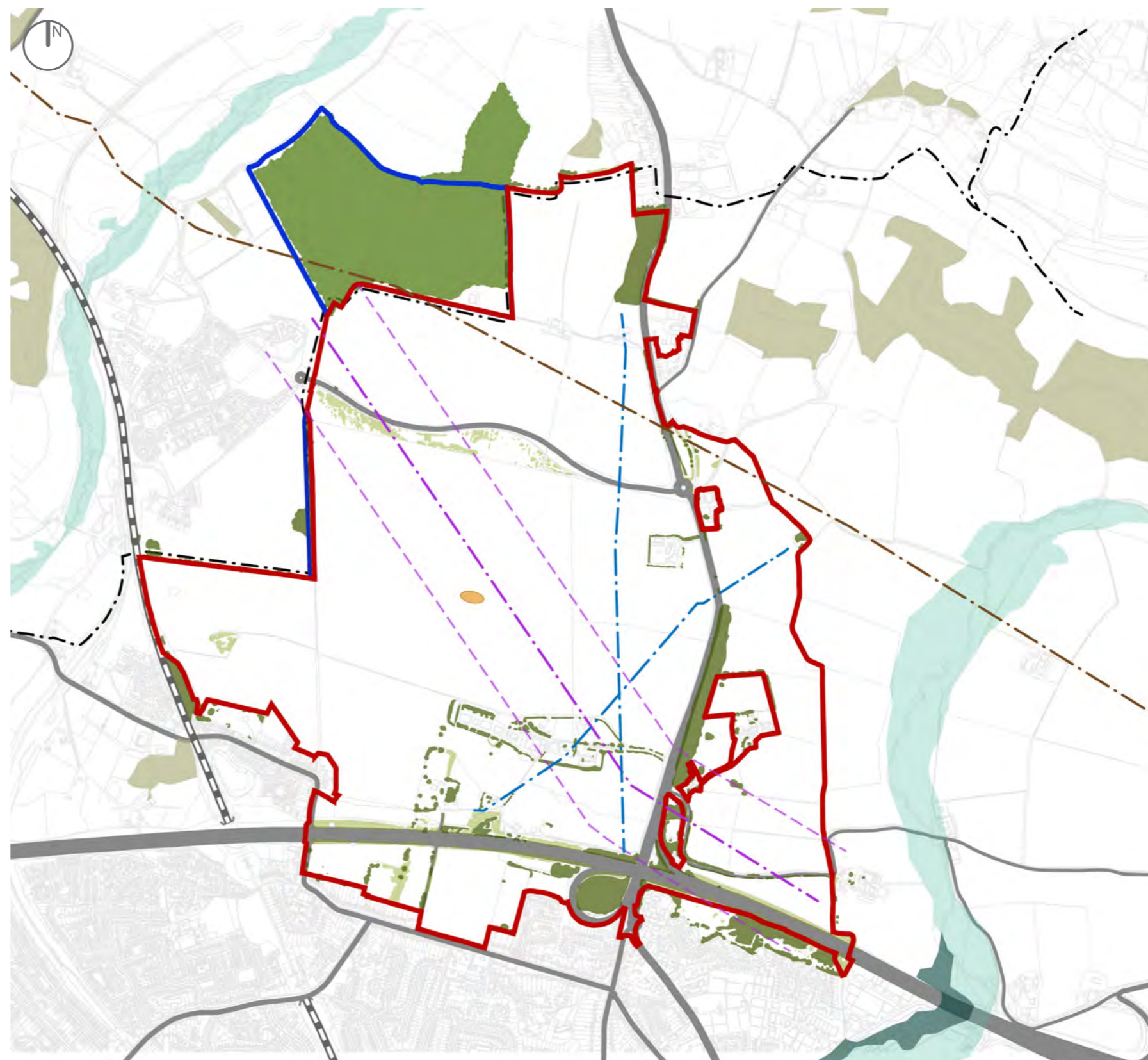


Figure 11.10 Site analysis



12. ENGAGEMENT AND EVALUATION

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12.1 Stakeholder involvement

Long-term commitment

Buckland, now the major landowner of the area allocated for the new community of Welborne, has been involved in promoting the site since 2008. This long-term involvement is part of our commitment to promoting and creating a high quality and attractive new community at Welborne, one which will leave an enduring legacy for generations to come.

There have been two clear stages of involvement by Buckland over the last ten years: the first focused on supporting FBC in allocating the site in the Core Strategy and informing the subsequent Welborne Plan and Design Guidance SPD (2008 to 2015); the second has focused on comprehensive masterplanning and preparation of this OPA. Figure 12.1 below shows a timeline demonstrating Buckland's long-term commitment to delivering a new community at Welborne.

Since 2008, Buckland has:

- Contributed to the Council's vision for Welborne (formerly known as the Strategic Development Area to the North of Fareham) by participating in workshops in March and June 2009, along with other stakeholders;
- Undertaken a study tour of exemplar developments and shared the findings with Council officers in December 2009;
- Commissioned technical studies to support the Council's allocation of the site including a Strategic Masterplan report in 2010. This involved a technical stakeholder charrette in June 2010 with local authority officers;
- Engaged with key stakeholders (local authority officers, elected members, service providers and community groups) as part of the Strategic Masterplan report

with two independent workshops in July 2010 and a community feedback session in November 2010;

- Supported the Council's allocation of the site during the Examination in Public (EiP) for the Core Strategy in 2011 by providing technical responses to the Inspector's Matters;
- Undertaken independent masterplanning, capacity and visioning work to support the Council's emerging Welborne Plan and Design Guidance SPD between 2012 and 2014;
- Supported the Council's Welborne Plan at the EiP including technical submissions to the Inspector's Matrix;
- Actively participated in the Council's Welborne Standing Conference between 2012-2016 alongside key stakeholders. Buckland's design team presented updates at intervals plus presentations on specific issues including a half day workshop as part of this ongoing dialogue; and
- Held public information events during 2016 and presentations to community groups explaining our design approach.

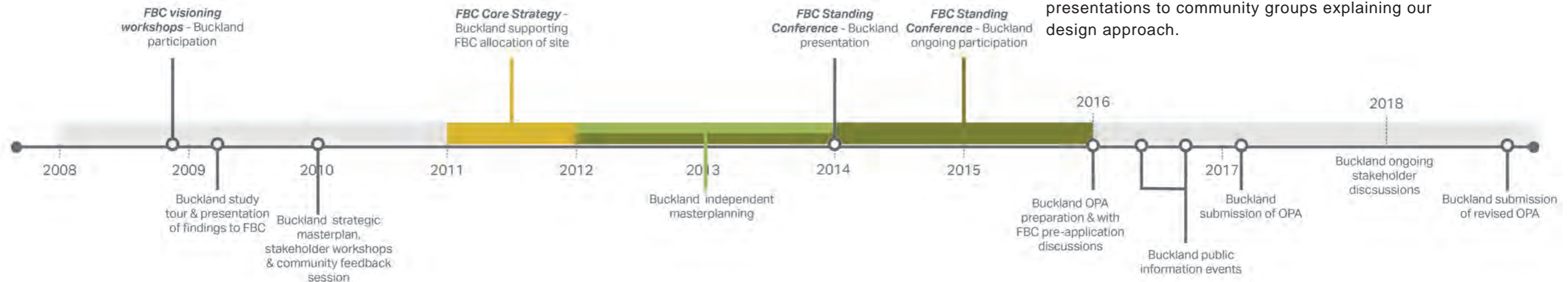


Figure 12.1: Buckland timeline

Key pre-application activities

The Buckland team has been undertaking comprehensive masterplanning of the site since 2008. As part of this work, there has been extensive, ongoing dialogue with key stakeholders and the local communities in the area, both as part of FBC consultation processes and, more recently, as part of their own engagement.

In the run-up to the OPA during 2016 in particular, the key pre-application activities Buckland's design team have undertaken include:

- Monthly meetings with FBC planning team;
- Further discussions, meetings and one-to-one briefings with other key stakeholders;
- Two information events for members of the public; and
- Set up a dedicated website about the proposals for Welborne - www.bucklanddevelopment.com -

Feedback from all of these has been considered and incorporated during the refinement of proposals for Welborne contained within this OPA.

Full details on Buckland's stakeholder involvement is set out in the Statement of Community Involvement (SCI) which is submitted alongside this DAS as part of this OPA with a summary provided below.

Officer and Member meetings

Monthly meetings have been held between Buckland's representatives and FBC planning officers in the Development Management team since June 2016 to discuss the application, application documents and content of proposals.

Other key stakeholder meetings

Discussions with other key stakeholders since July 2016 have included the following:

- Transport and the M27 - Hampshire County Council, Solent LEP, Highways England and FBC;
- Education (primary and secondary schools) - Hampshire County Council;
- Public transport - First Group (bus routes);
- Health - Fareham and Gosport Clinical Commissioning Group (East Hampshire CCG) and West Hampshire CCG;
- Community support - Portsmouth Diocese;
- Green infrastructure strategy, SANGs and HRA - Natural England;
- Dashwood - Winchester City Council;
- Utilities - Albion Water and Southern Water (foul sewage), SSE (electricity capacity and supply) and other utility providers; and
- IDP & viability - CBRE (FBC's advisers).

Public engagement

Neighbouring communities were engaged via the Community Liaison Group (newly established) with the first meeting on 15th February 2017 then quarterly thereafter to date. General one-to-one stakeholder briefings were held with Wickham Parish Council on 11th October 2016 and the Funtley Village Society on 28th November 2016. Meetings were also offered to the Knowle Village Residents' and the Wickham Society.

Information events

Buckland held two information events to display the draft proposals for Welborne, the first on Tuesday 5th July 2016 and the second on Wednesday 2nd November 2016. Invitation newsletters for both events were distributed to over 20,000 residential and commercial addresses in the local area.

The purpose of the first event was to inform the local community to Buckland's vision and aspirations for Welborne and exhibit its initial proposals for a site-wide outline planning application.

The purpose of the second event was to update the community on the how Buckland's proposals had progressed, focusing on key issues which were raised by residents at the first event in July. It was also an opportunity to hear Buckland's responses to the feedback received following the first event. Attendees had the opportunity to learn more about the key areas of the proposal, including infrastructure, transport strategy, community provision and green infrastructure.

Both events gave local people the opportunity to meet and speak with the project and consultant teams and to submit written feedback.

More detailed information on attendees' feedback to these two events is set out in the SCI.

Summary review of feedback

A review of the feedback received at each information event is summarised overleaf and set out in further detail in the SCI.

Information Event 1

A 112 feedback forms were received. The key findings were:

- 31% of respondents expressed support for the development;
- 82% of respondents felt the information event was either 'very informative' or 'somewhat informative';
- 23 of the respondents requested further information on traffic and highways, and nine more detail on public transport;
- 62% welcomed the approach and location of greenery and landscaping; and
- 33% of respondents expressed support for the proposals with 51% either 'unsure' or expressed 'no view', whilst 16% did not support the proposals.

Information Event 2

48 responses were received via the feedback forms:

- 38% of respondents expressed support for the development;
- 92% of respondents felt that the second information event was either 'very informative' or 'somewhat informative';
- 16 respondents requested further detail on traffic management and highways strategy and 6 clarification on healthcare provision;
- 64% of respondents found the updated details on transport strategy and highways useful;
- Over 50% of respondents found details on community provision and green infrastructure and infrastructure delivery useful; and
- 38% of respondents supported Buckland's proposals for Welborne, while 29% objected and 33% were either unsure or expressed no view.



Figure 12.2: A selection of the display boards from the first information event, July 2016

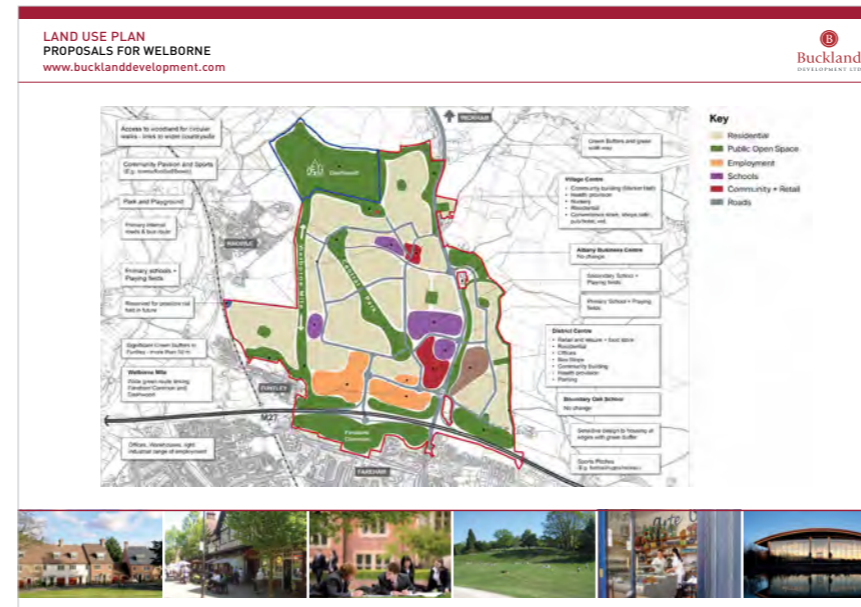


Figure 12.3: A display board from the second consultation event, November 2016



First consultation event, July 2016



Second information event, 2nd November 2016

12.2 Response to feedback

Summary response to comments

A detailed table is set out in the SCI which outlines the key issues most frequently raised at each information event, and the Buckland team's response to each of these topics. A summary is provided below.

Impact on local highways and traffic management

Response: Following the first information event, the ongoing transport modelling (M27 and A32) was completed. This enabled Buckland to respond with additional information on highways for attendees of the second information event.

The Transport Assessment submitted as part of the outline planning application includes detailed information regarding the traffic modelling undertaken by Buckland, the improvements which will be made to local highways (including Junction 10 of the M27) and the anticipated traffic movements when Welborne is fully completed and occupied. The outline application also includes details of the main internal site road network, with more detailed designs of the streets and junctions following in later applications. The improvements to Junction 10 will start within the first 5 years.

Proposed public transport

Response: The Transport Assessment assesses the capacity of existing public transport infrastructure and include recommendations for additional infrastructure required to support Welborne including: BRT; improved local bus services; an extensive network of pedestrian and cycle routes; and a site-wide travel plan (also see Chapter 10 of this DAS).

Potential impact on infrastructure and services

Response: The outline planning application identifies the infrastructure which will be brought forward as part of Welborne, including provision for schools, GP surgeries, green infrastructure, employment uses and community/recreation facilities. Capacity studies of existing infrastructure have informed the design and delivery of supporting infrastructure (see Chapter 5 of this DAS and the Infrastructure Delivery Plan).

Potential impact on existing settlements

Response: The impact of Welborne on surrounding settlements is a fundamental consideration for Buckland. Surrounding settlements have been considered in relation to key issues such as surface and foul water management, traffic, infrastructure and construction management; more information regarding these specific issues can be found within the technical reports submitted as part of the planning application. Green buffer areas are also proposed between new development and existing settlements to ensure adequate separation distances are achieved (see Chapter 9).

Managing flood mitigation and surface water

Response: Buckland completed ground investigation works in advance of the second information event which provided additional information on the permeability of the site. At the second information event, Buckland were able to advise attendees that: the site presents a low risk of flooding; surface water can be managed within the development with no net increase in surface run-off off site; and that a series of surface water features would be provided to capture and control surface water within the site. A Flood Risk Assessment and strategy is submitted as part of this outline planning application.

Managing foul water and potential impact on existing sewage infrastructure

Response: The outline planning application includes options for the management of foul water from Welborne, including any necessary upgrades to existing infrastructure. Early discussions are taking place with relevant utilities providers and any upgrade works will be agreed as part of the planning application.

Proposed design of homes

Response: Whilst the submitted application is outline only and does not include detailed designs of new homes, Chapter 4 of this DAS does include design guidance for development in the proposed character areas. Detailed designs for the new homes and facilities would come forward in future 'reserved matters' applications. Information regarding the proposed Character Areas was also displayed at the information event in November 2016.

Timescale and sequencing of development

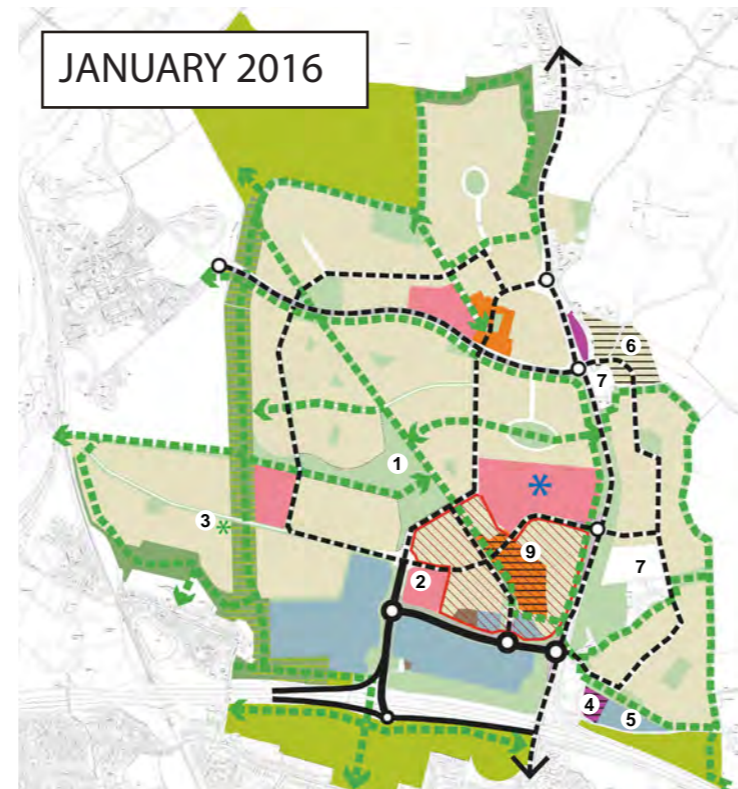
Response: To give attendees of the second information event a better idea of timescale, Buckland produced a sequencing plan for construction across the site and a timetable diagram setting out the key milestones of the project and infrastructure delivery over the coming years.

Design responses

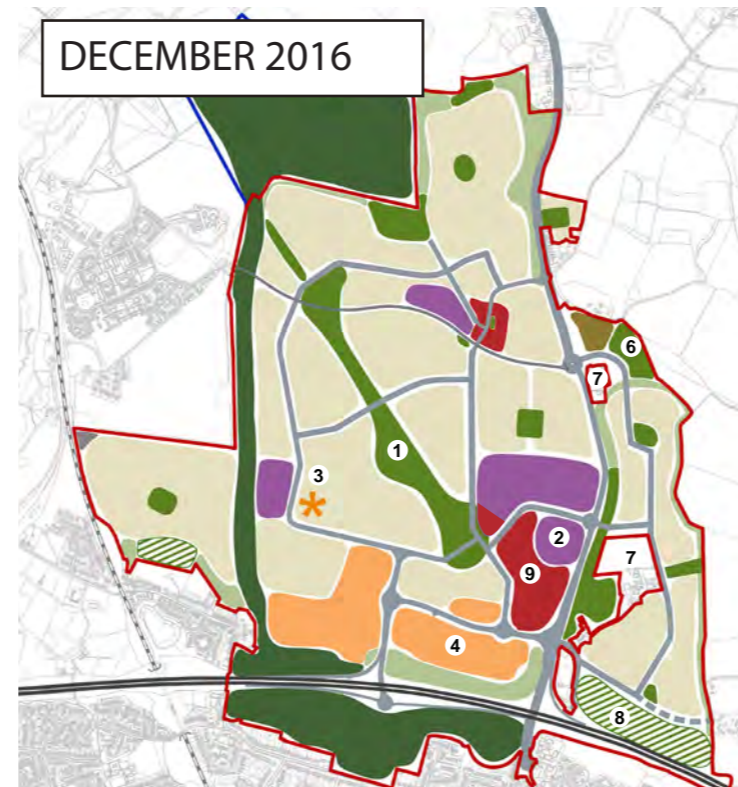
FBC's adoption of the Welborne Plan in June 2015 and the subsequent Design Guidance SPD in 2016 set out clear policies for the development. Importantly, the Welborne Plan includes the Strategic Framework Diagram which provides a basis for our comprehensive masterplanning. Whilst indicative, and not seeking to fix the exact location of various spatial elements, it was intended to provide a basis for a more detailed masterplan. This effectively reset the starting point for our design work, leading up to this OPA.

A summary of the key design changes between January 2016 and the submission of this OPA, is outlined below and shown, diagrammatically, in Figure 10.4. These changes were a result of ongoing feedback from key stakeholders, as well as more detailed design, development capacity and transport modelling work (also see Chapter 10). The key refinements include:

1. Re-alignment of the central park so that it responds more directly to the Welborne Plan;
2. Relocation of the District Centre's primary school closer to the Secondary School;
3. Relocation of the Community Hub from west of the Welborne Mile to its eastern side;
4. Relocation of the site for the waste transfer facility to the employment area (originally proposed by Pook Lane);
5. Removal of employment uses east of the A32 south of Pook Lane;
6. Inclusion of land east of Albany Farm within the red line boundary;
7. Exclusion of Albany Farm and Boundary Oak School from the red line boundary;
8. Location of sport pitches to the east of the A32; and
9. Refinement of concept design for the District Centre.



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Figure 12.4: Design changes January 2016 - December 2016

12.3 Post-OPA feedback and design development

Post-OPA feedback

A number of issues from FBC and statutory authorities arose in response to the OPA submission which have resulted in some refinements to the design. A summary of the key issues which have resulted in design changes is provided below.

Further information on the landscape-led approach and creation of a 'Green Grid'

Response: Following a number of meetings with FBC and their consultants LDA Design, additional information has been provided in this DAS on the landscape-led approach and character area influences. In response to FBC's priority for the creation of a 'Green Grid' with an understanding of the need to be flexible with proposed density and building heights as a consequence, the masterplan layout has been amended to include an additional east-west pedestrian and cycle link.

Additional buffer planting

Response: In light of air quality guidance, additional buffer planting between the motorway and the sports pitches has been provided east of the A32 and by Funtley.

Protection of the settings of Dean Farm House and Roche Court

Response: Changes to the design have followed after discussions with Historic England about how the proposals comply with the statutory duty to preserve the setting of Dean Farm House and Roche Court. These include relocation of the park east of the A32 - which was previously adjacent to the proposed sports pitches - to be closer to the Roche Court to protect important views - and inclusions of density bands around listed buildings/heritage areas to protect their settings.

Revisions to primary and secondary school locations

Response: Following further discussions with HCC Education, the primary school in the District Centre has been moved into a single parcel with the secondary school. The Village Centre primary school has also been relocated further north than previously proposed at the request of HCC Education, to move it away from a main road and to a flatter site.

Impact on local highways and traffic management

Response: In addition to ongoing transport modelling (M27 and A32) and further discussions with HCC and Highways England, revisions have been made to the proposed Junction 10 layout and therefore the proposed District Centre road layout. Changes have also been made to roads east of the A32 with closure of Pook Lane to through traffic to prevent traffic from using this route to reach the wider area.

Proposed public transport

Response: Following feasibility work carried out by Network Rail, the layout has been revised to include a larger site for a rail halt (9,600m²) on the western edge of the site. Also, discussions with HCC and additional transport modelling have resulted in revisions to the proposed BRT route.

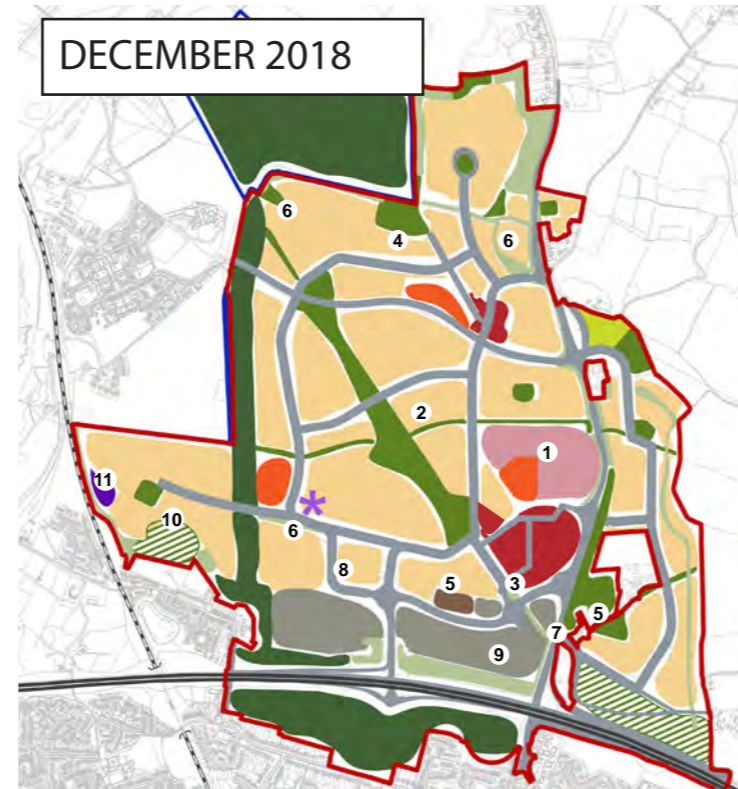
Sports provision

Response: Sports provision has been reviewed following discussions with Sport England and FBC and as a result, the proposed buffer by Funtley has been enlarged to include the proposed cricket oval.

A summary of the key design changes since the submission of the OPA is outlined overleaf and shown, diagrammatically, in Figure 12.5.

The key refinements incorporating and resulting from the discussions above and further design work include:

1. A combined primary and secondary school site;
2. Additional east-west green link;
3. Updated junction design and re-positioned Broadway roundabout;
4. Relocation of northern primary school;
5. Enhanced setting of Dean Farm House and Roche Court;
6. Additional SuDS features;
7. Closure of Pook Lane;
8. Adjustment to employment area and access arrangements;
9. Bus lane removed;
10. Increased size of cricket pitch at Funtley; and
11. Repositioned and larger rail halt provision.



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Figure 12.5: Design changes May 2017 - November 2018

12.4 Evaluation of proposals

FBC has set out clear guidelines for the new community at Welborne in its adopted Welborne Plan and Design Guidance SPD as set out earlier in Section 11.2. Buckland's design team has sought to embed these policies and principles within its proposals.

For ease of reference, the high level development principles from Policy WEL2 of the Welborne Plan and key principles from the SPD have been summarised below in Table 3, along with 'signposts' to the relevant proposals and sections in this DAS. A detailed assessment of how the development proposals meet the full set of policies and requirements

in the Welborne Plan and SPD is set out in the Planning Statement. It should be noted that some of the guidance refers to more detailed stages of masterplanning and design as part of matters reserved for future determination such as specific housing types and requirements in Chapter 6 of the Welborne Plan.

FBC GUIDANCE	SUMMARY OF POLICY / GUIDANCE	SUMMARY OF BUCKLAND PROPOSALS	MEETS FBC REQUIREMENTS?
THE WELBORNE PLAN			
POLICY WEL2 - High Level Development Principles	Form a functional part of Fareham and the wider South Hampshire area	<ul style="list-style-type: none"> Walking, cycling, vehicular and public transport links to and from the site to the wider area Green routes and open spaces within the site and beyond 	✓
	Create an inclusive and sustainable community	Provision of the following, all well connected to each other by a network of streets, footpaths, cycleways and bridleways: <ul style="list-style-type: none"> A network of green routes and open spaces for all to use and enjoy, to enhance biodiversity and to manage surface water runoff Suitable Alternative Natural Greenspace (SANGs) A range of housing, facilities, schools and employment opportunities 	✓
	Provide a range of highly accessible employment opportunities	<ul style="list-style-type: none"> Integrated employment opportunities within the designated employment area (c.20ha) and within the District and Village Centre and Community Hub, set within a well connected street network 	✓
	Create a connected network of Strategic GI open spaces and recreational facilities	<ul style="list-style-type: none"> A network of green routes and open spaces SANGs (Welborne Mile, Fareham Common and Dashwood) A large new central park to be known as Welborne Park 	✓
	Provision of GI to meet the recreational facilities of additional residents	As above, to include play spaces, sports pitches, SANGs, semi-natural greenspace, allotments, retained woodland and open space	✓
	Incorporate green settlement buffers into the layout	Provision of green settlement buffers to Funtley, Knowle, Wickham and Fareham	✓
	Apply the identified key transport principles focusing on self-containment and BRT	<ul style="list-style-type: none"> High levels of self-containment with homes located near jobs, facilities and schools A well-connected network of streets to encourage walking, cycle and use of buses Connection to the BRT service which will be extended through the site New Junction 10/M27 and junctions on the A32 to minimise traffic on more rural roads to the north A main north-south road through the site to direct traffic on to the M27 Integration of necessary transport infrastructure with sequencing of development 	✓
	Incorporate a balanced package of measures to encourage smarter transport choices	<ul style="list-style-type: none"> Walkable neighbourhoods to encourage self-containment and avoiding the use of the private car A network of footpaths, cycleways and bridleways to enhance connectivity Provision for the BRT service to be extended through the site New Junction 10 on the M27, new junctions on the A32 and a new north-south route to minimise the impact on more rural roads to the north and the A32 	✓

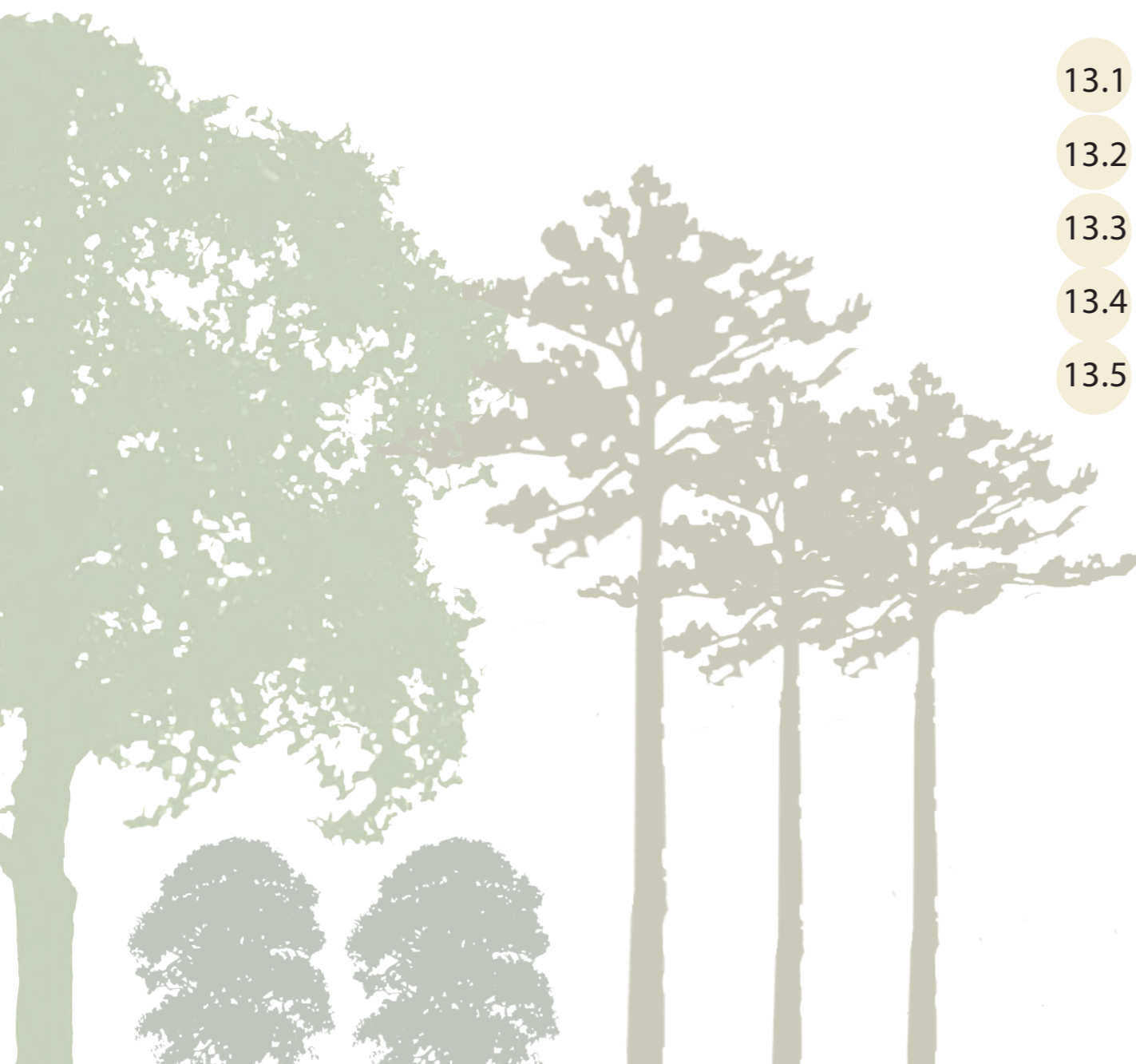
Table 3. Evaluation of BDL proposals against key FBC guidance

FBC GUIDANCE	SUMMARY OF POLICY / GUIDANCE	SUMMARY OF BUCKLAND PROPOSALS	MEETS FBC REQUIREMENTS?
POLICY WEL2 - High Level Development Principles (continued)	Provide supporting social and physical infrastructure	<ul style="list-style-type: none"> A range of retail units and facilities within the District and Village Centres Three primary schools and a secondary school Green open spaces and play and recreation facilities Physical infrastructure including roads, electricity sub-station and waste recycling facility 	✓
	Provide a range of housing in each phase	Provision of a range of housing types, sizes and tenure, including affordable housing, across the sequencing strategy to ensure an inclusive community develops across the construction timeline	✓
	Integrate Sustainable Drainage Systems into open spaces in each phase	Full integration of SuDS into the open space strategy from the start of planning and construction, and distributed across the sequencing strategy	✓
	Design each phase to include development at a range of densities and building heights	Each sequence includes development at different locations within the site and within different character areas to provide a range of building types, densities and heights	✓
DESIGN GUIDANCE SPD			
Site wide design principles (p.29)	<ul style="list-style-type: none"> Public space and private space Fronts and back of buildings Use of perimeter blocks Responding to south-facing topography Density of development Character of streets 	<ul style="list-style-type: none"> Homes fronting on streets will have generous front gardens and/or a slight change in level to ensure the windows serving habitable rooms are raised above the walkways Layout of development so rooms and private gardens will not be overlooked by neighbours Use of perimeter blocks ensure efficient use of land Higher density, mixed use development located in the centres, lower density on the edges Different street design and typologies reflecting location and function 	✓
Overall character and character areas (p.27)	Character areas within Welborne	Guidance for development in each character area covers key features and building character, reflecting FBC guidance and informed by our site analysis and design influences	✓
Green infrastructure (p.44)	<ul style="list-style-type: none"> Central Park (the FBC name for Welborne Park) The Long Barrow Corridors and connections Structural landscape Settlement buffers Development adjoining green infrastructure 	<ul style="list-style-type: none"> Creation of Welborne Park as a 'green lung' and focal point for the development following the alignment of the gas main and incorporating grassy sculptural mounds around the long barrow Green and tree-lined routes connecting the centres and open spaces Structural landscaping to integrate new development with its surroundings and screen views where necessary, as well as maximising ecological gains and providing visual interest Provision of SANGs and settlement buffers 	✓
Access and movement (p.55)	Detailed guidance	Clear and direct routes through the development within a defined street hierarchy with wide and functional streets	✓
Residential areas (p.29)	Design guidance for development and character areas	<ul style="list-style-type: none"> Residential layout, density and typology which responds to its character area and a clear relationship with the streets Mixture of on plot parking, on street parking and court parking as appropriate 	✓
Employment land (p.71)	Design guidance for the employment area as a whole	<ul style="list-style-type: none"> Active frontages close to the District Centre and strategic routes into the District Centre with appropriate planting for visual screening from the new Junction 10 	✓
District & local centres & community hub (p.73)	Design objectives	<ul style="list-style-type: none"> Walkable neighbourhoods with walking distance of at least one centre where schools are co-located and easily accessible Creation of a key attractive and well overlooked public space at the heart of the District and Village Centres, proportional in scale to their function with the incorporation of the the southern end of the Welborne Park into the District Centre Active frontages within the centres facing key strategic routes, particularly the M27 and A32, as well as the main north-south route within the site 	✓
Schools (p.79)	Design guidance	Schools will be co-located with the District and Village Centres and Community Hub in accessible locations on the primary street network, within the required 800-1000m walking distance of all residential areas	✓

Table 3 (continued): Evaluation of Buckland proposals against key FBC guidance

13. DESIGN INFLUENCES

13.1	Urban design and place-making principles	178
13.2	Learning from exemplar projects	180
13.3	Garden community design principles	183
13.4	Testing housing capacity following a garden community approach	193
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13.1 Urban design & place-making principles

This chapter sets out our consideration of best practice principles, the lessons we have drawn from elsewhere and the range of other influences that have shaped our design approach to Welborne.

The last two decades have seen a renewed and sustained recognition of the importance of good urban design and place-making in the creation of attractive and sustainable new communities. Beginning with a Discussion Paper on the importance of Quality in Town and Country (DoE 1994), a substantial body of urban design thinking and experience has emerged in the UK and been recognized in the planning policies and guidance of successive governments.

Members of the BDL design team have led and contributed to a preparation of a number of national urban design best practice guides and this has enabled the key principles to be translated into practice at Welborne.



Examples of national urban design best practice guides

Design & place-making

Drawing on this body of knowledge, the urban design and place-making principles that are considered particularly relevant to the design of Welborne include the following:

- **Understanding the lessons to be learned from the best of our past.**

From the best of the Georgian, Victorian and Edwardian eras, to the Garden Cities and Suburbs of the early part of the 20th century, the UK has places that have been enduringly popular and internationally admired.

- **Recognising the importance of movement as a generator of urban form.**

Mixed use areas need to be accessible not just to people living in a community but also to people passing by. To stimulate and support district and local centres movement routes need to go through places rather than around them.

- **Mixed use areas are a fundamental building block in creating a sustainable urban structure.**

The 800m walking catchment around district and local centres defines the area within which people are most likely to take advantage of local facilities. The planning of centres and the walkable catchment around them should seek to maximize the number of homes and people within the catchment to support the viability and vitality of the centre. Housing densities should be highest close to the centre and gradually decrease towards and beyond the edge of the catchment area.

- **Public transport services should be integrated with the land use plan.**

Residential densities should be increased around public transport stops and corridors. The network of streets should be designed to enable direct and convenient walking routes to public transport stops as well as to town and local centres.

- **Public open spaces create value and help to define communities.**

Parks and open spaces should be framed by development and well overlooked. This helps to create a sense of enclosure and safety as well as benefiting homes that enjoy a view of the park.

- **A permeable and interconnected street network has many benefits over an introverted network based around distributor roads and cul-de-sacs.**

A permeable network provides people with a choice of different routes and allows traffic to be distributed more evenly across the network rather than concentrated on to heavily trafficked roads.

- **Streets should be 'fronted' by development to provide overlooking and activity at street level.**

A perimeter block structure is a well proven, successful and flexible approach to the layout of residential and other areas. It provides clarity between the fronts and backs of buildings, between public and private space, enables continuous overlooking of the street and can be very efficient in terms of development density.

- **Car parking is a critical factor in the creation of attractive and sustainable neighbourhoods.**

It impacts directly on density, the quality of the environment and residents satisfaction with where they live. These best practice principles have helped to shape the Development and Design Principles for Welborne as set out in Chapter 3.



The UK has a fantastic heritage of creating attractive and sustainable places. Fareham High Street

13.2 Learning from exemplar projects

This body of urban design thinking has helped to shape the design of many new communities that have and are being constructed across the UK and Ireland. A number of 'exemplar' and award-winning projects have been developed which show how best practice thinking can be translated in a range of different contexts. In the summer of 2009 a series of visits were made to a range of 'exemplar' projects across the UK and Ireland. These included:

- Upton, Northampton;
- Arcadia, Cambridge;
- Newhall, Harlow;
- Ingress Park, Dartford;
- Poundbury, Dorchester;
- Woodbrook, Lisburn; and
- Adamstown, Dublin.

These visits highlighted a number of key strengths, as well as a number of key issues to be addressed.

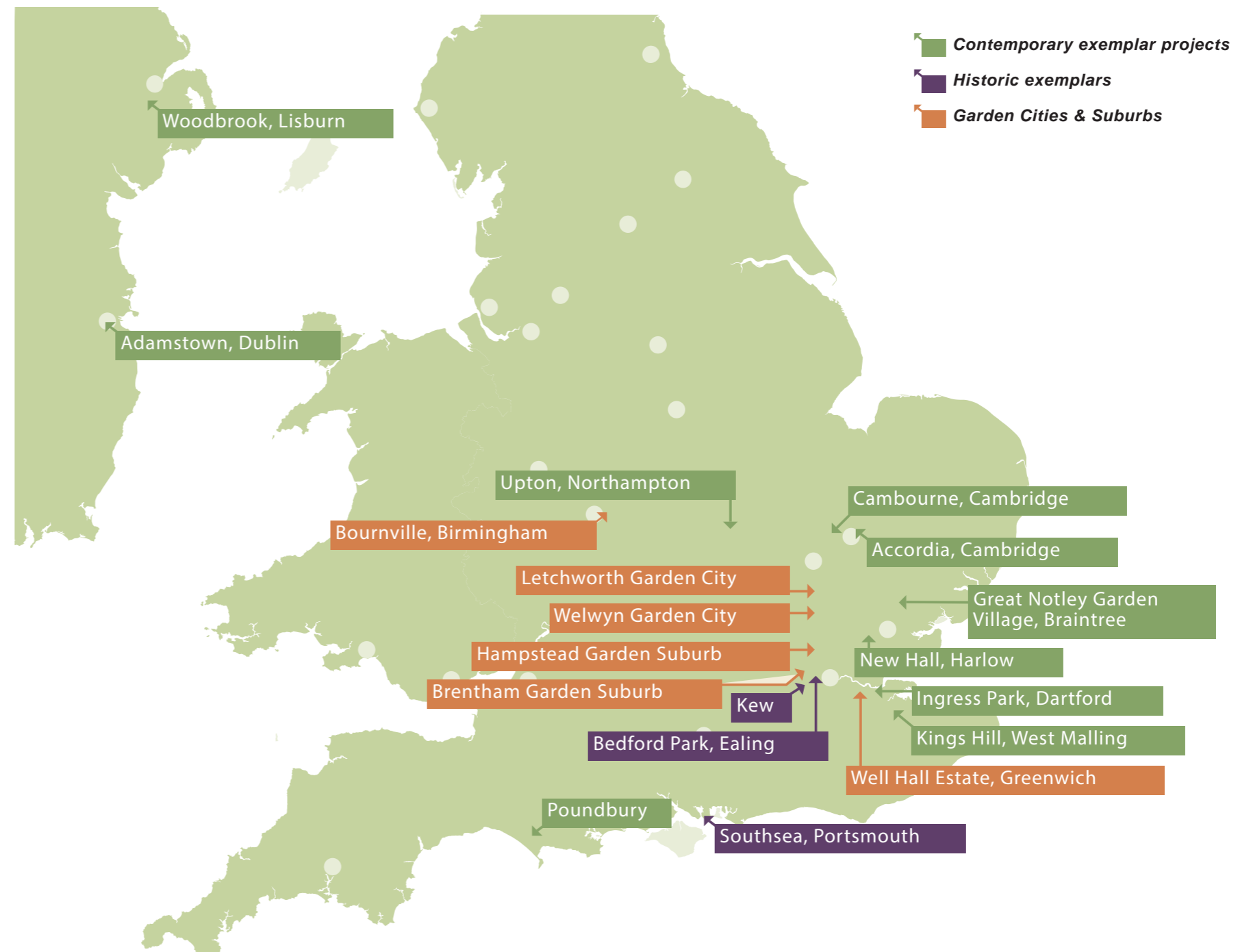


Figure 13.1 Historic and contemporary new communities that have helped to shape our design approach to Welborne

Key strengths identified

- The importance of having a strong and clear vision and a long term commitment to putting this vision into practice;
- The importance of governance arrangements to ensure that places are able to be maintained to a high standard over time;
- The ability of ‘first time’ developers and landowners to step back from established practice and promote and deliver innovative and award winning new community projects;
- The ability to create successful and memorable places that clearly stand out from everyday development practice;
- The way in which careful vernacular analysis can inform the design of communities that are strongly rooted in their townscape and landscape context;
- How more creative approaches to highway design can create places that places with a stronger sense of identity and character; and
- The importance of attention to detail in ensuring that design objectives are successfully translated into completed projects.

Key issues to be considered

- The difficulty in establishing mixed use areas as a focus of the community. In some instances this reflected established mixed use areas and superstores close by in others the difficulty of drawing movement routes through the new community;
- A lack of legibility and issues of way-finding that arose in a number of the exemplar projects reflecting a less than clear hierarchy of movement routes and ambiguous semi-private routes through car parking areas within development blocks;
- A lack of privacy to principal habitable rooms which often resulted in curtains and blinds being drawn during the day;
- Problematic arrangements for car parking, which in many cases was accommodated within the back of block areas. In some cases this resulted in substantial areas of parking that were not being used as they were intended;
- Street widths that were too narrow to accommodate on-street parking which was much more prevalent in practice than the design and parking strategy intended;
- A tendency for hard public realm to become overly dominant with limited provision of trees and greenspace within residential areas; and
- Provision of very limited or no private space to the front of homes and comparatively small gardens to the rear. This was because the back of block areas tended to be used for parking.

These key strengths have informed our design approach to Welborne. In particular we have placed emphasis on learning from the best of our urban and suburban communities to create a place with a strong identity and local character. Our analysis of the character of south Hampshire towns and villages is set out in Section 13.3 below.

Further analysis and lessons for Welborne

In developing our design approach for Welborne, we wished to find ways of ensuring that there is sufficient space for car parking and vehicle movement and that at the same time homes enjoy good levels of privacy and attractive private and public greenspace.

To inform this consideration we undertook an in-depth analysis of the layout of residential areas within the exemplar projects to understand how and in what proportions the plans provided space for homes, streets, car parking, gardens and amenity space.

This analysis found that the exemplar projects devoted a very substantial proportion of their area to roads, footways and parking areas. On average, across the six schemes examined in detail, the percentage was found to be 48%. This very high percentage is explained by the fact that, as shown in Figure 13.2 opposite, well as requiring space to park, cars using rear parking courts also require space for access and manoeuvring.

This finding was contrasted with a traditional perimeter street block model in which cars are parked on-street or on-plot to the front/side of homes. In this approach – and with a comparable level of parking - the area required for roads, parking and footways was substantially lower enabling more space to be given over to private gardens.

This analysis was presented at a workshop with Fareham Borough Council officers in December 2009 and the underlying principles have informed the development of the design approach at Welborne ever since.

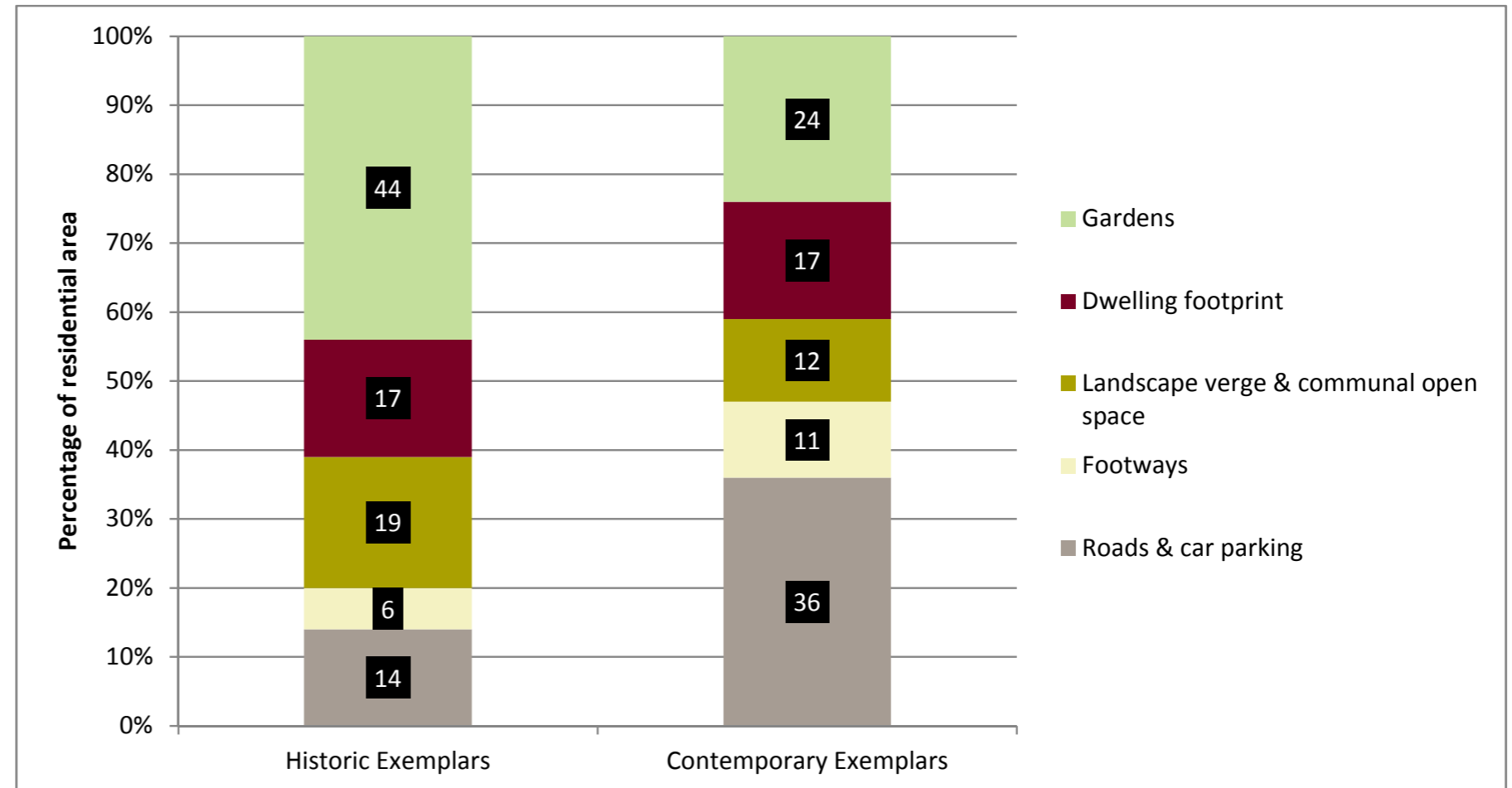


Figure 13.2 Comparative analysis of land use budget

13.3 Garden Community design principles

Introduction

The last five years has seen a significant resurgence of interest in the UK's heritage of Garden Cities and Suburbs. This began in 2011 with the TCPA report Re-imagining Garden Cities for the 21st Century and now includes more than a dozen publications considering different aspects of the Garden City proposition.

In response to this campaign the Government included a specific reference to Garden City principles in the NPPF. This states that:

“The supply of new homes can sometimes be best achieved through planning for large scale development, such as new settlements or extensions to existing villages and towns that follow the principles of Garden Cities.” (para. 52)

The Welborne Plan has been strongly influenced by the resurgence of interest in Garden Cities and Suburbs and sets a vision of creating a 21st century Garden Community at Welborne. Following this approach we have given particular priority to examining how a 21st century Garden community can be created at Welborne.

Learning from the original Garden Cities and Suburbs

In seeking to develop a 21st Century Garden Community design approach we made a series of visits to some of the original Garden Cities and Suburbs. These visits enabled the design team to build up a more detailed understanding of the character and quality of the original communities and the urban and landscape design principles underpinning their enduring success. The places that were visited by both the client and design teams included the following:

- Letchworth Garden City
- Welwyn Garden City
- Bourneville
- Hampstead Garden Suburb
- Brentham Garden Suburb

As well as looking at the layout and character of the communities these visits also included meetings with the organisations responsible for the long term management and maintenance of the communities and these discussions have contributed to the development of the governance strategy for Welborne. The over-arching design principles identified during these visits include the following:

- Well-planned communities at scale;
- Supported by the full range of facilities and services;
- A robust framework for detailed design;
- Larger & greener development blocks;
- The best of town & country;
- A range of attractive homes;
- A landscape structure that matures over time;and
- Formal and informal places.

These principles are considered further on the following pages.



Hampstead Garden suburb



Welwyn Garden City

Well-planned communities at scale

The original Garden Cities at Letchworth and Welwyn Garden City demonstrate the benefits of a comprehensive planning approach. The locations for the first Garden Cities were carefully chosen to benefit from high quality rail and road access that in time supported the development of successful employment and retail areas.



Welwyn Garden City aerial view showing a well planned new community

Supported by the full range of facilities and services

Letchworth and Welwyn were planned to include the full range of facilities and services needed to support a new community. This included town and neighbourhood centres, educational facilities, employment areas, community services and a wide range of open spaces. Bourneville included local shopping, the Cadbury factory and both secondary and primary schools while the largest Garden Suburb at Hampstead included local shopping, primary and secondary schools and places of worship. These facilities have contributed to varying degrees of self containment but in all cases have supported community development and a strong sense of identity.



Early factory at Letchworth is now a business centre



Local centre shopping at Bourneville



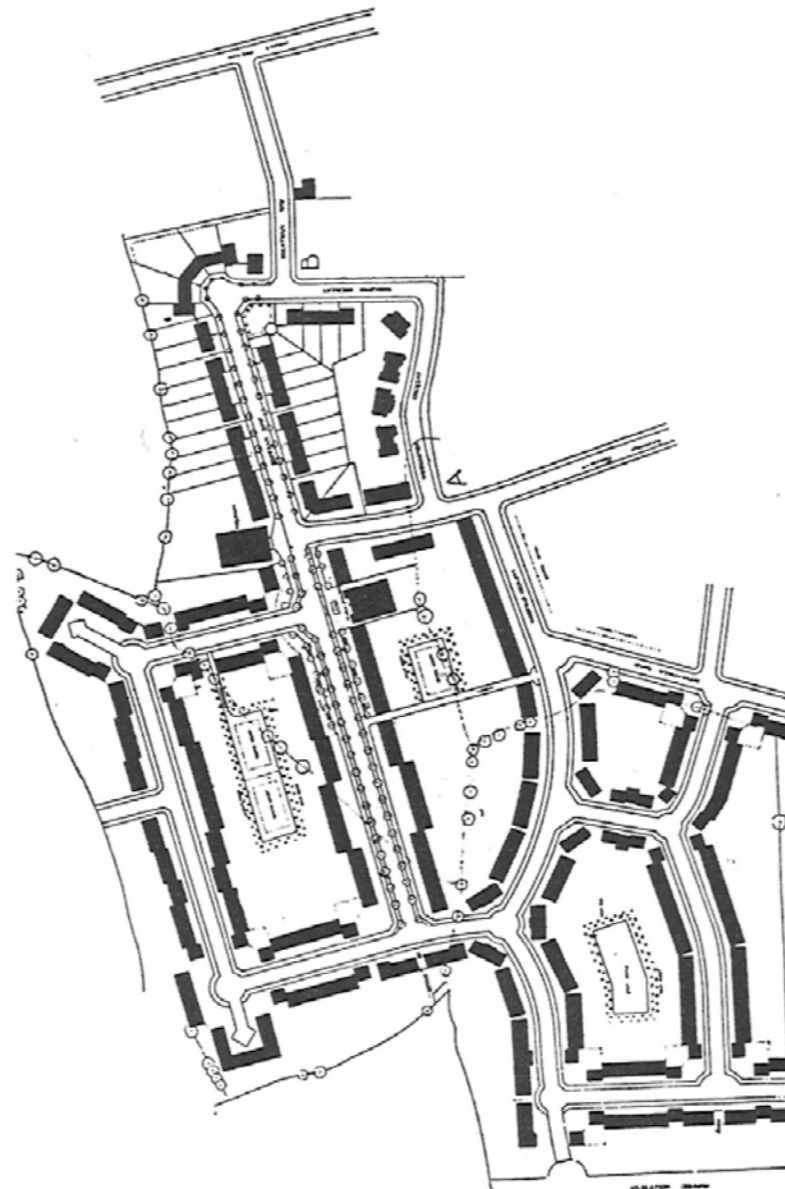
Primary school at Welwyn Garden City



Tennis courts at the Brentham Club

A robust framework for detailed design

All of the Garden Cities and Suburbs visited had benefited from a straightforward and robust masterplan framework. This established the principal routes for movement, defined efficient blocks for development, created well-framed open spaces and set a framework for the integration of built development and landscape areas. This framework provided a robust foundation for the development of excellent domestic architecture and landscape design.



Masterplan for Brentham Garden Suburb by Raymond Unwin 1907



View along Brentham Way



Allotments within larger development block at Brentham

Larger and greener development blocks

A common characteristic of all the places visited is that they are formed of comparatively large and very green development blocks. In the main homes front onto streets with rear garden areas running end-to-end to provide large natural areas. Some larger development blocks include 'closes' (cul-de-sacs) which add to the variety of housing and avoid too low development densities. The public realm of streets and avenues are green including front gardens, hedges, street trees and sometimes grass verges.



Hampstead Garden suburb aerial view showing a perimeter block structure with enclosed gardens and cul-de-sacs within some of the larger development blocks

The best of town and country

Ebenezer Howard's vision of combining the best of town and country provided a powerful design philosophy for the original Garden Cities. This was reflected in the creation of surrounding 'green belt' areas, the provision of high quality cultural and civic amenities within a strong landscape structure and in the ways in which the transition between town and country were articulated. While the Garden Suburbs were often integrated with surrounding urban neighbourhoods the distinction between town and country remained important with Raymond Unwin placing significant emphasis on the micro-level relationship between the home and its garden and by extension the street.

"...a more harmonious combination of the city and country, dwelling house and garden"

- Raymond Unwin (1912)



Clear boundary between town and country at Hampstead Garden Suburb



Sizeable Hampstead house sitting in a larger plot



Mixed use town centre at Letchworth Garden City



Indicative rear gardens

A range of attractive homes

The Garden Cities and Suburbs have all succeeded in meeting the housing aspirations of successive generations and remain popular today. A key reason for this is that they provided a range of robust, attractively designed and well-planned homes that meet a range of housing needs. The fact that these homes have been set within a landscape structure that has continued to mature means that arguably they are more attractive today than they were on the day they were completed. The quality of design, attention to detail and integration of homes with landscape holds many important lessons for Welborne.



Detached homes fronting a green at Welwyn Garden City



Attractive street section at Welwyn Garden City



Terraced housing at Brentham Garden Suburb



Intimate housing close at Welwyn Garden City

Formal and informal places

All of the Garden Cities and Suburbs are planned communities that have developed from an initial masterplan framework. Some parts of the plan are grand such as the axial central parks at Letchworth and Welwyn and the radiating arrangement of streets created by Lutyens at Hampstead. Other elements are smaller scale and informal. This mixture of the formal and informal, the grand set piece and the smaller scale composition add significantly to the charm and quality of the communities.



Formal green-axis at Welwyn Garden City



Informal green space at Bourneville



Vista to landmark building at Hampstead Garden Suburb



Informal housing group at Welwyn Garden City

A landscape structure that matures over time

A defining characteristic of the original Garden Cities and Suburbs is a very strong landscape structure of parks, open spaces, woodlands and tree-lined streets. This structure, together with private garden areas to the front of homes, creates a leafy and green character. The changing seasonal nature of this landscape creates an ever changing backdrop to the built environment. This includes strong ambient qualities from cool air and filtered sunlight on a summers day, to bird song and the sound of wind through tree canopies and the rustle of autumn leaves. These are positive qualities that link the urban and natural environments, bringing benefits not just in terms of creating beautiful places but in stimulating the human senses and supporting health and well-being.



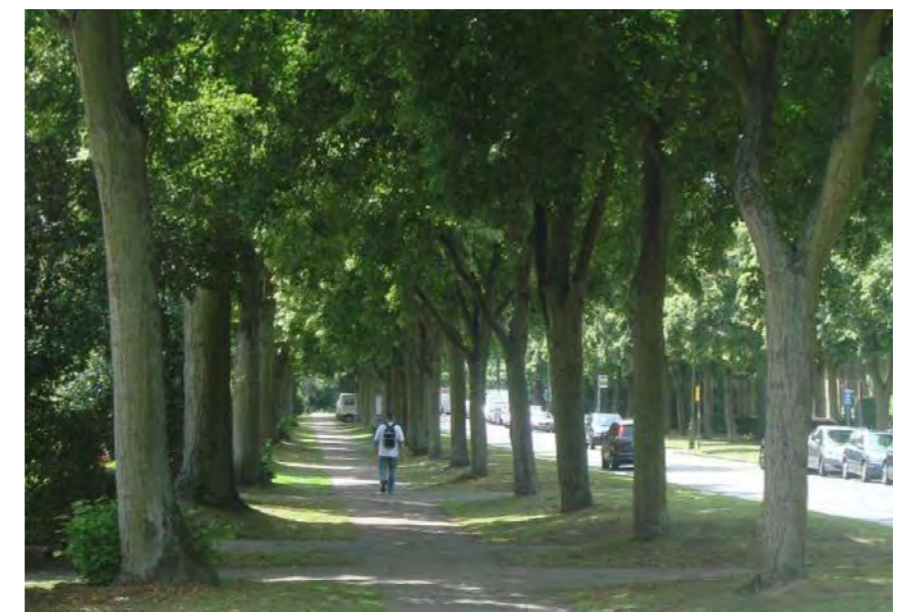
Large park at Bourneville



Sports provision at Brentham Garden Suburb



Civic space at Hampstead Garden Suburb



Double tree line along the Broadway at Letchworth Garden City

How a Garden community design approach can be applied today

The original Garden Cities and Suburbs, have a distinct character that is substantially defined by their landscape structure of parks, tree-lined streets, homes with gardens and the interweaving of the best of the urban and natural environments.

A fundamental question is whether it is possible to replicate these characteristics today. This was the specific focus of research undertaken by members of BDL's design team to support the early phase of the TCPA's Garden Cities campaign. Published in April 2012 to mark the Centenary of Raymond Unwin's *Nothing Gained by Overcrowding!*, this work illustrated two different approaches to the design of a 4ha residential development: one following a typical contemporary development approach; and the other following a Garden City inspired approach. Both achieved a comparable level of density, floorspace coverage and amount of car parking but resulted in completely different characters of residential neighbourhood.

In comparison to the current practice model the Garden City approach produced homes with larger gardens, areas of attractive shared greenspace as well as tree-lined streets.

This analysis was important in demonstrating how a Garden City inspired approach to layout can be achieved today and in illustrating how this can unlock a number of wider benefits in terms of supporting biodiversity, building in climate change resilience and promoting human health and well-being.

While the level of carparking included in the analysis was below that proposed for Welborne, it is considered that the general approach is relevant in its application to Welborne.

Scheme A - typical rear parking court layout

4 hectares, 137 homes, 34 dwellings per hectare, 1.5 parking spaces per home



Scheme B - re-interpretation of a Garden City approach

4 hectares, 120 homes, 30 dwellings per hectare, 1.3 parking spaces per home



Figure 13.3 Comparative analysis of layout using Garden community principles

13.4 Testing housing capacity following a Garden Community approach

While the majority of Garden Cities and Suburbs were built at comparatively lower densities we identified Brentham Garden Suburb in Ealing as an example of a highly attractive Garden Suburb built at a similar density to that envisaged for Welborne.

Brentham is a community of c.600 homes that was developed by the Ealing Tenants Ltd between 1901 and 1915. Brentham is a highly regarded 'Pioneer Garden Suburb' for a number of reasons:

- It was developed following a co-partnership approach to funding and development reflecting new co-operative thinking of the time;
- The masterplan for the largest part of Brentham was prepared by Barry Parker and Raymond Unwin who also prepared the masterplans for Letchworth Garden City and Hampstead Garden Suburb; and
- The sense of community identity created through the original development - including the Brentham Institute (now Club), has continued to thrive to the present day.

Brentham was among the first neighbourhoods in the country to be designated as a Conservation Area in 1967 meaning that its character and high design quality has remained largely intact.

While Brentham is less well known than Hampstead or Letchworth its qualities have been recognised by many with a strong interest in the creation of high quality new communities. The foreword to the centenary history of Brentham includes the following praise and encouragement from HRH The Prince of Wales:

"...a small, yet inspiring, piece of English town planning [that] will help to encourage others, be they developers, planners or concerned members of the public, to see the lasting benefits of planning at a human scale, of the enduring relevance of building crafts and the importance of artistry in our architecture, if places of Brentham's quality are to be built again.

(HRH The Prince of Wales)

A series of visits have been made to Brentham during the evolution of the design concept for Welborne. These have



The street view of Brentham Way, illustrates a street section comprised of street parking, tree-lined verge, footway, soft boundary treatment to front gardens

confirmed Brentham as an important reference project which exhibits a number of key qualities that are sought for Welborne. These include in particular:

- a strong sense of place and identity;
- a thriving and mixed community with a clear sense of spirit and pride in the area;
- a seamless integration of landscape and buildings to create a complete place;



The house images from Brentham above illustrate high quality domestic architecture and landscaped front gardens in different styles and scales

- excellent domestic architecture that contributes to an overall sense of cohesion while creating individuality at the level of the home or group of homes;
- accessibility on foot to key local facilities such as the local centre and the Brentham Club; and
- a tranquil environment with positive ambient qualities.

Density

Some of the first homes to be built at Brentham were built as standard Edwardian terraced and semi-detached homes and therefore do not exhibit a distinctive Garden Suburb character. It was in 1907 following the purchase of a more substantial area of farmland that Parker and Unwin were commissioned to prepare a masterplan following Garden Suburb principles. This was followed later by a further masterplan by Frederic Cavendish Pearson for a smaller area to the west. In practice the design approach underpinning both masterplans is so similar that it is difficult to tell the areas apart. Of the c.600 homes at Brentham we calculate that 534 are within the 16.46ha area masterplanned as a Garden Suburb. This equates to an overall density of 32.5 dwellings per hectare. This calculation excludes the area of open space around the Brentham Club in the same way that our calculations of residential density at Welborne exclude the main areas of parkland.



Figure 13.4 Brentham - layout plan and density analysis

Developing a Garden Community design approach for Welborne

Drawing on our earlier analysis and the lessons learned from the original Garden Cities and Suburbs we were then able to evolve a number of illustrative masterplan layouts for different parts of the Welborne site. These illustrative layouts enabled us to test how the design principles could be applied while meeting requirements for car parking and building at different densities. Three illustrative layouts were prepared to explore how the principles could be applied at: c.20 dwellings per hectare (dph); c.30 dph; and at c.40 dph.

The three illustrative layouts are shown below. This analysis demonstrated that the principles could be applied to the two lower density areas to create a very strong garden community character comprising tree-lined streets, green verges and homes with good sized front and back gardens. In line with the subsequent Welborne Design Guide SPD, car parking was predominantly provided in a 'paired' and 'tandem' format to the side of homes and on-street in order to make it convenient for residents and to minimise the impact on the street scene. However, it was necessary to provide some parking for mid terrace homes on plot to the front. This analysis was important in developing our strategy

for residential car parking. The higher density illustrative layout, for an area close to the Village Centre, exhibits a more urban character. This includes narrower streets and lanes and a higher proportion of apartments. This different character is strongly informed by the analysis of the character of surrounding town and village centres (set out in Section 11.5 below) and important in creating new centres at Welborne that are strongly rooted in the Hampshire context.



Figure 13.5 Illustrative garden Community Layout at c. 20 dph

Site area: 6.0 ha
Homes: 127
Density: approx 21dph



Figure 13.6 Illustrative garden Community Layout at c. 30 dph

Site area: 4.52 ha
Homes: 134
Density: approx 30dph



Figure 13.7 Illustrative garden Community Layout at c. 40 dph+

Site area: 1.60 ha
Homes: 64
Density: approx 40dph

More detailed design and capacity testing

The publication of the Welborne Design Guidance SPD in January 2016 enabled us to validate our emerging approach to residential layout against the design guidance for residential areas. This analysis demonstrated a strong correspondence between guidance in the SPD (pages 63 – 70) and our emerging Garden Community design approach. The confirmation that Welborne would be expected to meet the Borough-wide car parking standards also enabled us to test our emerging approach to ensure that it was consistent with the requirement for Welborne to provide up to 6,000 homes. This testing used a housing market mix and dwelling sizes informed by market analysis and street cross sections consistent with those presented in Section 6.6.

Three illustrative proving layouts were developed for different areas considered to be appropriate for higher, medium and lower development densities. The three illustrative layouts are shown below. This analysis confirmed the potential of a Garden Community approach to residential layout to achieve densities consistent with the requirements of the Welborne Plan and in ways that are consistent with the Design Guidance SPD.



Figure 13.8 Illustrative capacity testing layout for a medium density area at c.34 dph



Figure 13.9 Illustrative capacity testing layout for a lower density area at c.27 dph



Figure 13.10 Illustrative capacity testing layout for a higher density area at c.42 dph

Wider considerations supporting a Garden Community design approach

In developing our design approach we have considered how it relates to other existing and emerging policy objectives that are impacted by the way in which new communities are planned. This consideration, including a literature review and stakeholder engagement, has identified a number of areas where a Garden Community approach to design would bring important positive benefits. The principal areas include supporting:

- Climate change resilience;
- Biodiversity;and
- Human health and well-being.

There is an extensive body of research and literature in respect of each of these topics and the following is only intended to be the briefest of introductions to this.

Climate change resilience

A Garden Community approach to design creates less hard surfaced areas and a higher proportion of permeable and natural areas. These areas allow for greater water infiltration close to where rain falls and this helps to reduce the risk of urban flooding. Tree canopies and planting further intercepts rainfall in summer storms and delays surface water run off. This is a positive benefit given concerns about more frequent extreme rainfall events and the need to manage surface water.

Hard surfaced areas also absorb and radiate heat contributing to an urban heat island effect. In contrast trees, grass and vegetation reflect heat and this helps to reduce a build up of heat in an area. Trees in particular make a

significant contribution to mitigating the impacts of extreme heat events, not just by providing shade but also through the process of evapotranspiration in which water is expired thus reducing temperatures.

The planning of open space networks provides significant opportunities to build in climate change resilience. However, it is important to recognise that the need for summer cooling and shading arises in close proximity to homes and this underscores the benefit of a Garden Community design approach in creating opportunities for gardens and tree planting close to homes. Public Health England's Heat Wave Strategy for England indicates an increasing risk of extreme heat events within South East England, and therefore identifies the provision of green infrastructure in close proximity to homes and other buildings as the most important medium term mitigation measure. A Garden Community approach to design at Welborne can help to build in the identified adaptation measures and make Welborne more resilient.



Trees and green spaces create amenity and provide a wide range of benefits



Biodiversity

Integrating green infrastructure with the built environment creates significant opportunities to enhance biodiversity. Domestic gardens in particular have been found to support very high levels of biodiversity and when garden areas are consolidated into large enclosed blocks they have the potential to become informal nature reserves. In the same way green verges and street trees can provide important biodiversity corridors linking gardens, open spaces and woodland areas. In this way a Garden Community approach to design can help to ensure that the development of Welborne results in a significant increase in biodiversity compared to the baseline agricultural condition.

Human health and well-being

Recent years have seen an increasing recognition of the relationships between planning and health with the Government launching a Healthy New Towns initiative. Some of the necessary design elements such as parks and sports grounds and safe walking and cycling routes to schools should be a given in any development. However, a Garden Community approach can add further support for human health and well-being by creating closer and more frequent contact with nature. Gardens in particular have been identified as providing important health benefits not just in terms of exercise but in promoting mental health and well-being. There is a growing research and evidence base making the links between contact with nature and human wellness with the Department for Science's Foresight Report concluding that "Access to nature and the natural are significant contributors to individual mental capital and well-being."

Consumer attitudes and aspirations

Society has changed enormously in the period since the original Garden Cities and Suburbs were planned, but for the most part they have adapted to these changes and remain popular and highly desirable places to live today. One reason for their enduring success is that they offer a lifestyle that matches the aspirations of a great many people; for a well designed home with a garden in an area that is safe and well connected to jobs and other facilities.

The importance attached to a private garden is highlighted in the CABI report What Home Buyers Want – attitudes and decision making among consumers. This collated the findings of 25 earlier consumer surveys, included focus group interviews and an on-line survey of 900 prospective home buyers. This found that:

"A crucial factor for home buyers in choosing a house is the provision of outside space, and of gardens in particular. But it is not just the availability of a garden that is important, but also its usability and size. In a 2004 survey, over three quarters of the respondents preferred to have a private garden rather than sharing a communal space with their neighbours; and about one in five buyers of houses built under PPG3 guidance complained about the size of their gardens".

This finding is mirrored by an opinion poll survey undertaken by Populous for the Wolfson Prize in 2014. This found that of the 6,000+ people polled 78% felt it was important to provide private gardens in new developments. While this view was most strongly felt by older people, 75% of 25-34 year olds also believed that private garden space was important.

All of the above benefits create important opportunities to make Welborne a more sustainable, resilient and healthy community.



Recognition of the importance of gardens in supporting biodiversity

13.5 Local character analysis

Introduction

One of the key strengths identified through the visit to exemplar schemes, was the way in which the design of a number of projects had been informed by careful analysis of character of surrounding towns and villages.

This section of the document aims to identify local building tradition that can inspire a new development at Welborne. It analyses the architectural forms and details of several local settlements, thereby providing a resource of typologies. This will help to create buildings and urban spaces that both stem from and reinforce local vernacular architecture, ensuring that the particular character of the area is strengthened.

The study focuses upon Fareham itself, and takes in the nearby villages of Funtley, Knowle and Wickham, all of which are in relatively close proximity to one another, sharing some similarly characteristics. However, they all still maintain their individuality and unique features.

Fareham

Fareham developed in the Saxon period due to its strategic location - the original settlement was on a defensible hill near where the church of St Peter and St Paul now stands. It was also close to a creek for easy unloading of cargo from ships. During the medieval period it grew into a town with a weekly market, possibly at the northern end of the High Street, and its port also became busy, based around the import and export of wine. Development was focused upon long, narrow, burgage plots along the High Street (formerly North Street) and West Street, a layout that remains today behind many of the Georgian facades. The curve of the street suggests it is built over a much older route. Many older timber framed buildings survive behind later facades, with paths and driveways to the rear for servicing and long brick walls often separating the plots.

Fareham grew into a prosperous market town and went through a period of expansion in the eighteenth century. Due to its close proximity to the naval dockyard at Portsmouth, it became a popular location for naval officers to live, as it was more genteel and less crowded. In addition, Fareham's advantageous location made it a popular market town from which local produce could be sent to the dockyard. As a result, many houses were refaced or rebuilt to present a fashionable Georgian appearance. The town retains this character today with many attractive townhouses lining its main routes. Even where older houses were rebuilt, the strong line of the High Street and the early burgage plot layout was maintained, often with carriage arches to provide access to the rear. Some of the larger, more formal Georgian residences sit on wider plots, formed by amalgamation on the earlier, narrow burgage plots.

The market later moved to the southern end of the High Street and when it moved further west to West Street, an island block of buildings developed to form Union Street, permanently replacing the market stalls. This narrow lane is particularly characterful today. Gradually, the market and the retail centre of the town continued to shift to the west, and this trend has continued with the construction of modern shopping centres. Slightly away from the town centre, new development occurred in the nineteenth century, based around a group of villas in Church Path. These replaced an earlier farmhouse and barn called 'Manor Farm' and (flint to create a deliberately rustic effect.)



Milne's 1791 map of Fareham, with its distinctive road layout and location next to the water.



A historic view of the High Street, looking north.



A historic view of West Street.



Church Path is a striking contrast to the rest of the town centre.



Union Street was based around the site of the former market and has an intimate character.



Fareham High Street is lined with many Georgian houses built on medieval burgage plots, but with few street trees



Funtley

From the seventeenth century the area became famous for brick and tile manufacture from the local clay, producing a 'Fareham Red' brick that was widely used locally and shipped throughout the country and abroad. It also produced the famous Fareham chimney pots, clay tiles, pottery and clay pipes. This industry flourished in the nineteenth century. A number of brickyards were located close to the town, including the nearby village of Funtley, which had a particularly famous brick and tile works. It supplied bricks for use in the construction of the Royal Albert Hall in London, as well as wider export in the UK and abroad. The Fontley Brick & Tile Co. were producing hand-made bricks from the 1850s to 1923, when machine production took over. The works closed in 1967.

Although there was a village at Funtley (on the site of Great Funtley Farm) at the time of the Domesday book, it shrunk to only a few houses during the medieval period. Modern Funtley really only emerged during the nineteenth century, when the construction of the railway opened up the clay deposits east of the Meon and kick-started the brickmaking industry. This led to the development of a new 'industrial' hamlet, to the east, around which the brick and tile works developed. The original red brick houses that formed the core of this new village can still be seen at the heart of much later development.



Historic view of Funtley, famous for its brick and tile works.



Historic photograph showing workers at the brick and tile works.



Some of the Victorian red brick houses that still remain at the core of Funtley.

Knowle Village

Knowle Village, located between Fareham and Wickham, is formed around the core of what was then popularly known as a Lunatic Asylum, built in 1852. The hospital was built to comply with the 1845 Lunacy Act, in order to provide care for people deemed to be 'lunatics' within the County of Southampton. The site was chosen at Knowle Farm and the building was designed around a corridor plan structure by the architect surveyor James Harris. The buildings were constructed in local red brick with grey slate roofing and both the main hospital and chapel are Grade II listed.

During the twentieth century mental health care developed and changed and the building gradually declined from active use, leading to its closure in 1996. After closure the site was redeveloped as Knowle Village, a development of over 700 houses. The development incorporates most of the original, converted hospital buildings, including former staff residences and the chapel, with access to the site from a new road from the Wickham to Fareham Road to the east.



The old hospital at Knowle Village has now been converted into attractive housing with the original chapel retained.

Wickham

Located about three miles north of Fareham, Wickham is thought to have originated as a small Roman settlement along the road from Winchester to Chichester. It was founded in earnest, however, by the Jutes from Denmark, who invaded central Hampshire after the departure of the Romans. The Saxons established a settlement on the east side of the river, close to a Manor House.

However, Wickham as we know it today dates from the thirteenth century when the weekly market was established and a new town was established on the western side of the river. This settlement was based around a central square surrounded by buildings set on long, narrow burgage plots, and this layout remains in place today. From this main square a series of narrow lanes open out to the countryside; Mill Lane to the north, Mayles Lane, Tanfield Lane and Titchfield Lane to the south and south-west.

During the eighteenth century the tanning and brewing industries became prosperous and Wickham grew accordingly, with many houses around the square rebuilt or refaced. Like Fareham, the original burgage plot layout was maintained, with houses given a fashionable update, and carriage arches used to provide service access to the rear. The continuous building line and roofline creates a strong sense of enclosure to the central space and there are many fashionable Georgian houses surrounding the market place.



The 1840 Tithe Map of Wickham showing the layout of the square and the surrounding lanes (Hampshire Record Office 21M65/F7/255/2)



The Square at Wickham is lined with attractive houses and shops.



Narrower streets of Victorian red brick houses lead off from the main square in Wickham.



Squares and key open spaces

Wickham Square is a large rectilinear space enclosed by generally continuous frontage. This is enhanced by access to the rear spaces through carriage arches and narrow covered lanes. The building line varies in places and a few buildings retract behind front gardens creating a little informality and visual interest.

The main space is generally commercial with residential areas behind and beyond. Built form is mostly two storey which gives this rather large space a very open character. A few trees add definition to on-street parking but pedestrian activity is largely defined to the edges. There are several areas of public/ pedestrian space where chairs and tables from cafes spill out onto the wider pavements. This creates a vibrant street scene.

One of the narrow ends of the space is defined by buildings in view that adds distinction and visual enclosure. The other end is not as defined by building frontage but instead announces arrival to Wickham in clear view from Winchester Road. Today, much of the square is taken up by parking but historic photos allow the full effect of the space to be appreciated.



An aerial view over Wickham square in the 1930s.



Above: Although the square today is largely used for parking, it is still a very attractive space. Below: A historic view of the square at Wickham, before the advent of cars.



New Alresford

New Alresford is the furthest town from Fareham included in this study, but it is a compact settlement and a good example of a medieval planned market town, from which much can be learned. The core of the town is broadly 'T-shaped' and incorporates three main medieval streets; West Street, East Street and Broad Street, as well as Pound Hill and The Soke. A small island at the junction with East and West Streets marks where the original town/market cross was sited.

The town, originally named *Novum Forum*, was founded in the twelfth/thirteenth century, by Henri de Blois, Bishop of Winchester. He died before the completion of the project and Godfrey de Lucy, his successor, finished the town centre. New Alresford quickly became established as a prosperous market town, focused on wool and leather.

Broad Street is a particular striking open space (see section 'Open Spaces') lined by largely Georgian buildings. East Street is characterised by terraces of vibrantly painted smaller houses, spaced between larger properties. West Street contains the majority of the shops and commercial buildings, including two original coaching inns.

Fires have been a part of life in Alresford over the centuries, with much of the medieval town destroyed in a particularly bad blaze in 1689/90. This was followed by two further fires 1710 and 1736. As a result, much of the town was rebuilt in the eighteenth century, with many of the Georgian buildings remaining today. However, the original medieval street pattern was retained, with most house rebuilt on the same pre-existing foundations or cellars, immediately fronting the road. The layout today is therefore still based upon the original burgage plots. The result is an almost continuous building line, which creates strong sense of spatial containment. Most houses have a passageway to the rear, leading to a yard, sometimes with outbuildings. Throughout the town, there is an array of brightly painted, colour-washed properties, mixed with properties with red or Flemish bond patterned brickwork.



Aerial View showing the historic core of Alresford, with its T-shaped layout.



View along East Street, with its colourful mix of houses in brick and painted render.



Historic view looking down Broad Street (Hampshire Record Office 126A08 B5)



View along Broad Street today, lined with Georgian facades.



View along West Street, which contains the majority of Alresford's shops and commercial buildings.

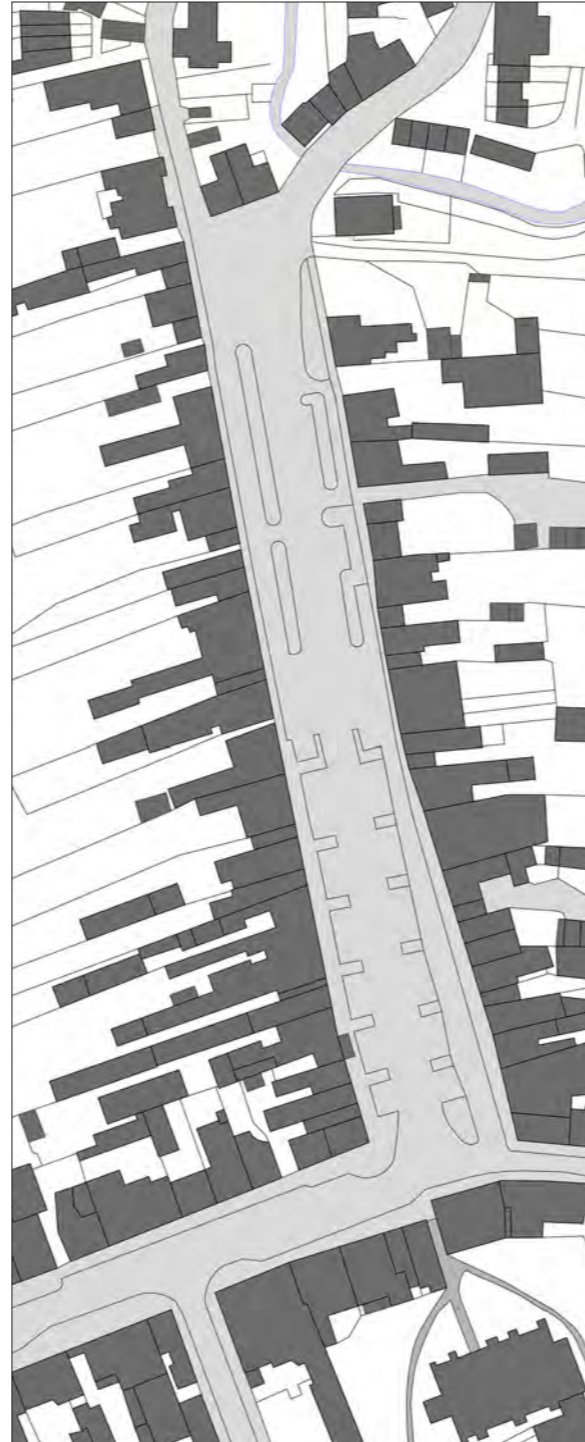
Squares and key open spaces

The centre of New Alresford is defined by the strong built enclosure of the wide main Broad Street - the route is 100ft wide, and lined with trees and grass verges. The space runs north to south from the River Alre (at the Soke and Mill Hill) to its southern junction with East and West Street. It is generally divided into a commercial end to the south, and a residential end to the north.

The width of Broad Street suggests that it was probably specifically designed as a market place. Certainly in the thirteenth century there was a market house at the southern end of the street, near where the church now stands. It was next to a 'shambles' where animals were butchered and slaughtered.

Built form is mostly two storey and a line of trees helps divide the main space into spatial segments of good proportion. Houses lining the space are well known for their Georgian architectural character, and either brick facades or brightly painted exterior finishes.

Access to rear courts are through carriage arches but small gaps between buildings occur along the residential end. The lines of trees also add definition to on-street parking and more quiet lanes behind, allowing pedestrians increased space for movement away from the main carriageway. The narrow ends of the space are framed by buildings in view that adds distinction and a strong sense of place.



Broad Street is lined with trees (see above) which divide the main central route from quieter side lanes used by pedestrians (see below).



Each end of the space is framed by buildings in view.

Bishops Waltham

Bishops Waltham began as a Saxon settlement. Despite being destroyed by the Danes in 1001AD, it grew steadily to become one of Hampshire's largest villages. In 1136, Bishop Henri de Blois, brother of King Stephen, built a palace at Bishops Waltham. For centuries, the Palace was an important residence of the powerful Winchester bishops and hosted many Royal visitors. The Great Pond was built in the medieval period, close to the palace.

This brought prosperity to the town and at this time, the town developed the core of its current form. The principal route was the High Street, running along a linear north-south orientation, forming the densest part of the town and ending southwards at St. George's Square. In this centre the plot sizes are small and based on the medieval grid pattern. A key focus of the town is St. George's Square, located at the southern end of the High Street, and at the gates of the Palace; this was probably the site of the medieval market. By the late thirteenth century a weekly market was held, selling bread made from the flour produced by its two mills, and by the fifteenth century the town boasted a small wool industry.

In 1644, during the civil war, the palace was destroyed and Bishops Waltham's emphasis shifted towards becoming a commercial and service centre for the agricultural villages of the district. Apart from the ruins, which are open to the public, material from the Palace was used as building material in properties still standing to this day. In the Victorian era the town spread along roads at right angles to the main High Street.

Bishops Waltham also had its own important brick and tile works; Claylands Brick & Tile Works was established in 1860s to the west of the town and closed in the 1960s. Houses for workers were built in Newtown.



A nineteenth century map of the town showing the board street layout.



Bishops Waltham has an attractive range of buildings, usually faced in local brick or render.



A selection of view of some of the attractive side streets that lead out from the historic centre (above and bottom row).



View along the popular High Street of Bishops Waltham.



Squares and key open spaces

The key open space in Bishops Waltham is St. George's Square, which leads into the wide High Street. The Square was probably the site of the medieval market. The square is partially enclosed by several eighteenth and nineteenth century buildings that are of significant historic value. It is not completely enclosed however, and gaps provide an historic link and views to the Palace ruins.

By the eighteenth century there was a market house in St. George's Square, the upper floor of which was used as a school in the nineteenth century. The market hall was demolished in 184 and the stone under the existing clock is the last remaining part of the building.

The northeastern end of the space opens up into the wide High Street, and in this way, it acts as a continuation of the Square. The High Street is well enclosed by buildings that sit hard on the pavement edge, and is lined with attractive buildings, most with shops at ground floor level. The High Street narrows to the north and leads out to various smaller side streets.

The Square effectively forms the entrance to the village centre, although less so today than when originally formed. Before the bypass was completed in the late 1960s, the main road connecting Bishops Waltham with Corhampton, Botley, Winchester and Wickham met in the square meaning that most traffic came through this space.



View of St. George's square in the 1840s, with its original market house.



View across St. George's square as it turns north-east into the High Street.



View into St. George's square today (centre) and a view south along the wide High Street (above), which terminates in the distance at the square.

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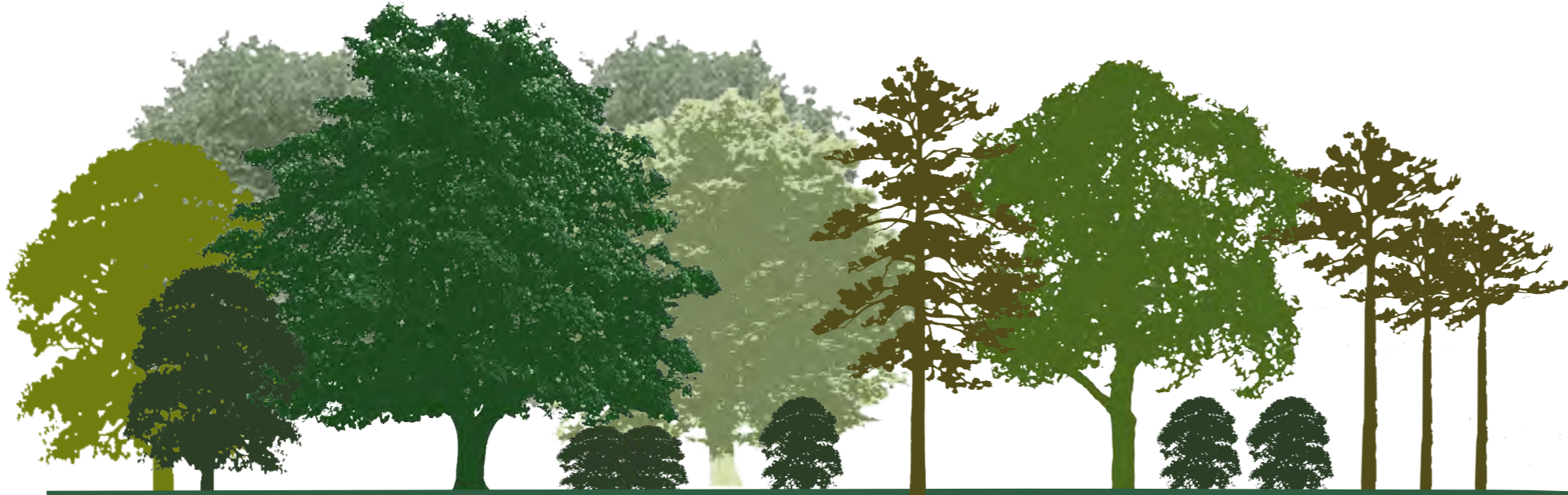
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